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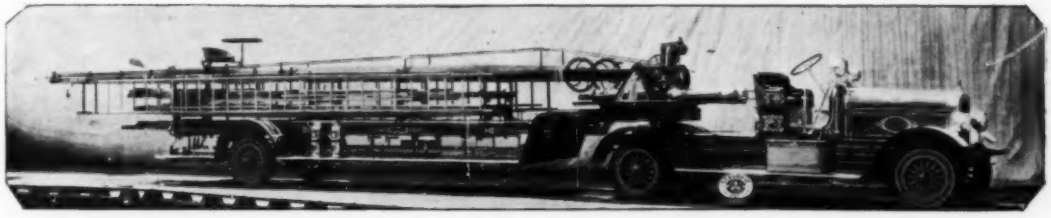

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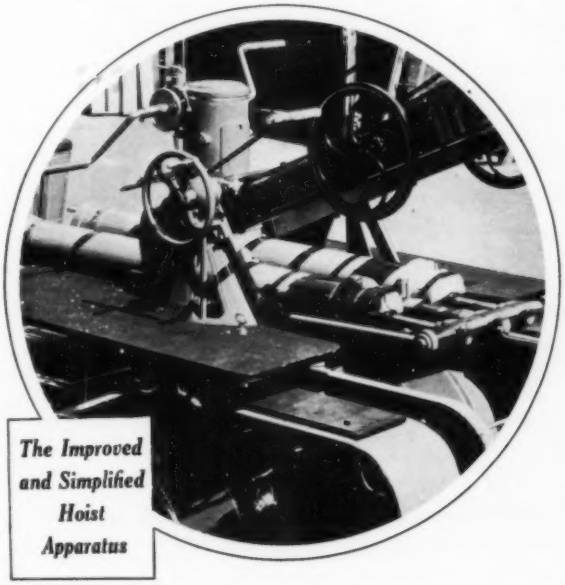

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The Journal of the Fire Protection Profession Since 1877

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FIRE ENGINEERING

A consolidation of FIRE AND WATER ENGINEERING *and* THE FIRE ENGINEER

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Thanks, Sam!

HOW'S this for splendid sportsmanship? The following letter from good old Sam Boyd, Chief of the Knoxville, Tenn., Fire Department and one of the best known and most popular fire officials in the country, tells its own story, so we needn't comment further:

December 28, 1927

Gentlemen:

I am sending you my personal check for $27.00, subscription for periodicals for the Fire Halls of this Department.

The City failed to appropriate anything for periodicals for the coming year and I think so much of your journal that I am paying this bill myself, realizing that the men will derive great benefit as well as pleasure upon its arrival. I have been reading it for the past 27 years and feel that I could not do without it as it is the one publication among many that I feel is essential to the work that I am now doing and have done for the past quarter of a century.

Very truly yours,
Sam. B. Boyd,
Chief, Fire Dept.

¶ Ever see a stronger letter to *any* magazine?

The Publishers

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Contents of this issue copyrighted, 1927, by Case-Shepperd-Mann Publishing Corp., 225 W. 34th St., New York City
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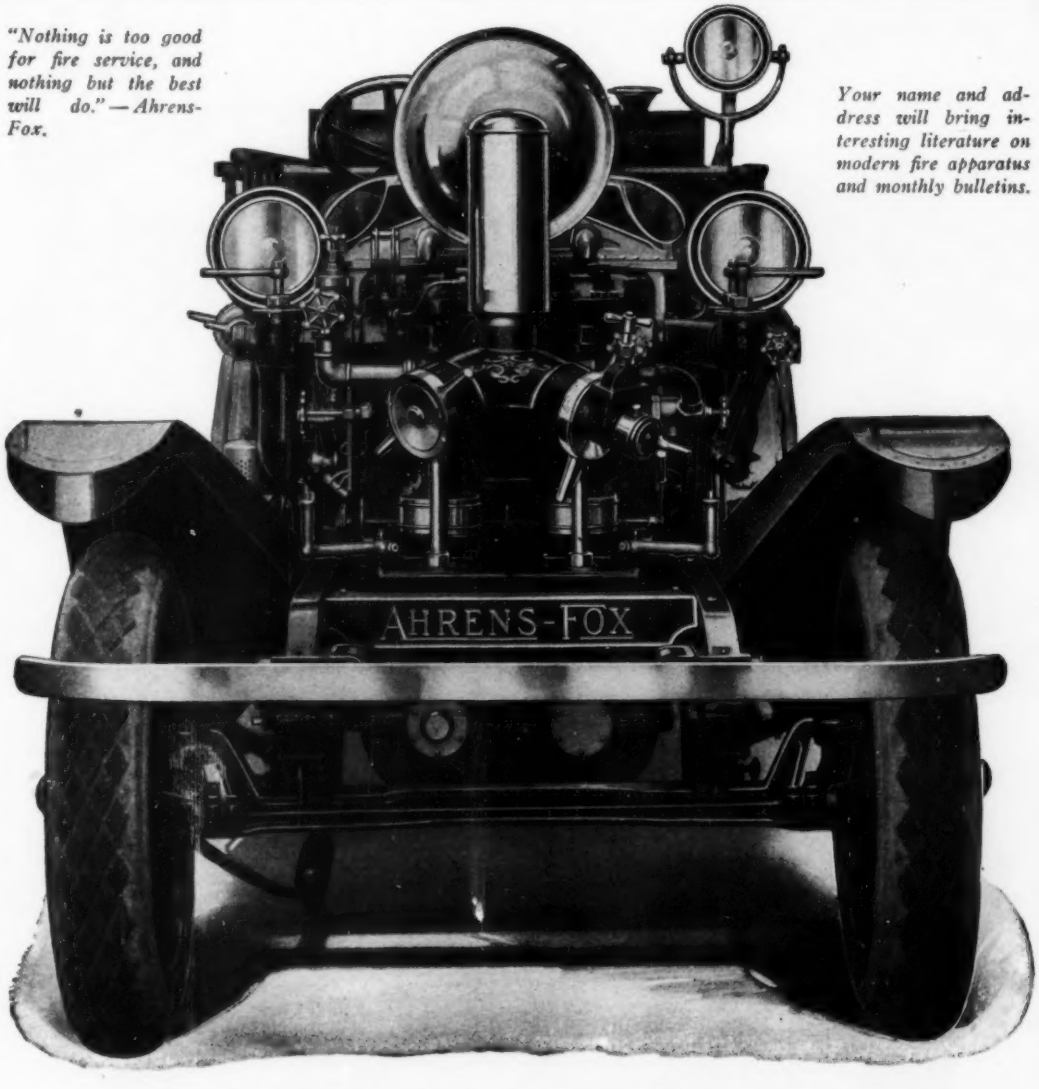

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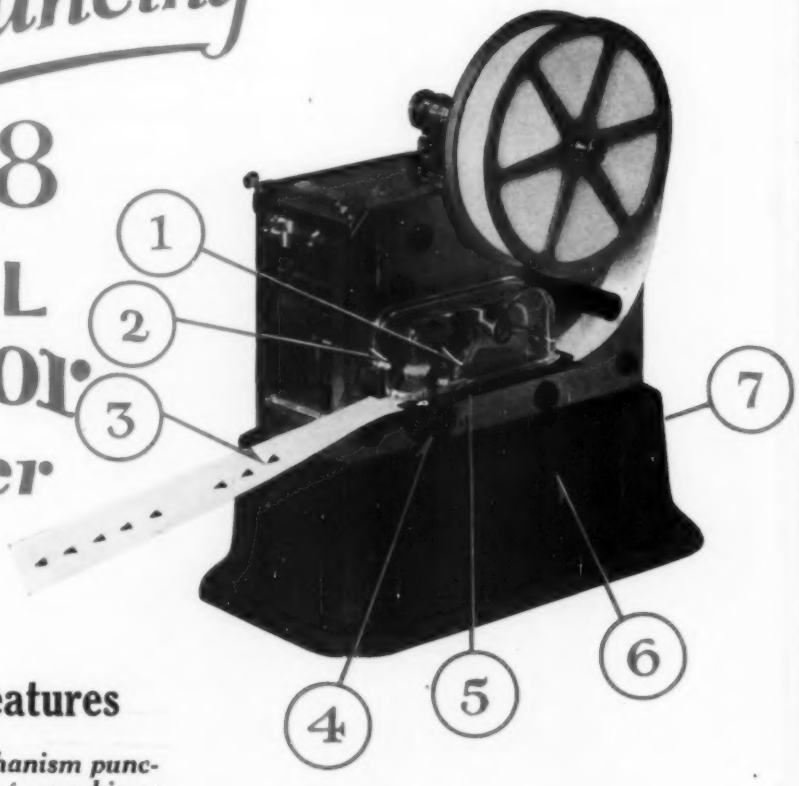

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In demonstrations before Fire Chiefs and Municipal Electricians at Portland, Oregon, and Salt Lake City, Utah, the new Register operated almost continuously for 120 hours, striking 864,000 blows. Practically no signs of wear were evident at the close of this test.

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(A bulletin describing this Register more fully will be sent upon request)

The Gamewell Company

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FIRE ENGINEERING

(A Consolidation of Fire and Water Engineering and The Fire Engineer)

The Journal of the Fire Protection Profession

VOLUME LXXXI JANUARY 11, 1928 NUMBER 1

Instructing the Public Through Exhibits

How Milwaukee Fire Department Inspection Bureau Demonstrates Prevention—Showing How to Pull the Box—Booths Illustrate Hazards

By ASSISTANT CHIEF EUGENE F. HACKETT, Fire Inspection Bureau, Milwaukee, Wis., Fire Department

FIGHTING fires before they are set has come to be a very important branch of fire department practice. How this is accomplished in the city of Milwaukee is told in the following article, which embodies the work of the Fire Inspection Bureau municipality's Fire Department:

The letter head of the Fire Inspection Bureau of the Milwaukee Fire Department contains this Legend: "Carelessness Causes Casualties; Prevention Promotes Protection." Following out the principles contained in these words the bureau has, besides its regular inspection duties, conducted some intensive fire prevention work both during Fire Prevention Week and at other times of the year.

Demonstrating the Fire Alarm Box

One feature of this campaign against fire carelessness has been the demonstration of the proper use of the fire alarm telegraph box. Our method of bringing this home to the general public, both young and old, has been by means of a box mounted on a fire truck. This apparatus has been moved from place to place, especially during Fire Prevention Week, attended by members of the bureau, who lectured to the crowds which gathered, on the advantages of the use of the box over the telephone as a means of summoning the fire department; the proper method of pulling the box; explanations of the different types of boxes in use; description of the system and what takes place when a box is pulled, and so on.

Much time was devoted to teaching the public school pupils and others the use of the fire alarm. A group of these children, swarming over the apparatus and eager

Fig. 1. Showing School Children How to Send a Fire Alarm From a Box

The members of the Fire Inspection Bureau of the Milwaukee, Wis., Fire Department, showing public school children how to pull a fire alarm box.

to learn is shown in Fig. 1. Such scenes were common during the bureau's campaigns of instruction, and the children proved ready and intelligent pupils in learning the mysteries of the red box.

Another field of endeavor along this same line was

Figs. 2 and 3. Instruction Work for Workers and the Public at Milwaukee, Wis.

Members of the Milwaukee Fire Inspection Bureau demonstrating at street corners and before the employees of industrial plants the proper methods of sending a fire alarm from a box.

the enlisting of the interest of manufacturing plant operatives in fire prevention and also instructing them in the ready use of the fire alarm box. Figs. 2 and 3 show interested groups listening to the lecture on the use of the alarm and trying out their ability in operating the box. In connection with this work the bureau devoted some of the time to interesting the general public in the matter. The apparatus was parked on street corners and the lecture was given to any who might care to stop and listen. That many did is shown by the illustrations.

Signs Emphasizing Fire Prevention

Another branch of the bureau's work is shown in Fig. 4. The fire apparatus was utilized to bring home

Fig. 4. A Striking Sign on a Fire Truck During Fire Prevention Week

lessons of fire prevention during the week devoted to that cause. This was done by striking placards, with large letters and snappy sentences, similar to those shown in the illustration, placed upon the sides of the trucks. These were then moved about the more crowded thoroughfares, and few citizens escaped seeing the apparatus, whatever may have been the lasting effect of the signs upon them. This work was continued throughout Fire Prevention Week.

Booths Bring Home Fire Prevention Lessons

Twice during each of the preceding four years the Fire Inspection Bureau has conducted exhibitions along the lines of fire prevention. Booths were arranged with exhibits calculated to make those who viewed them think of the effects of carelessness in his matter.

One of these displays was held each year in the month of March, when some 65,000 persons viewed the exhibits during seven days. The second exhibition which was held in the City Auditorium in October, covered a period of one week and the number of visitors amounted to about 95,000.

Booth Shows Various Fire Prevention Devices

One of these booths (Fig. 5) showed various types of fire extinguishers, safety cans for volatile liquids, metal containers for oily rags, etc., outside incinerator for burning rubbish, etc.

In another (Fig. 6) were exhibited two type of fire alarm boxes connected with a register, the alarm boxes being demonstrated by firemen and the public being permitted to operate them.

Booth Shows What Not to Do

Another type of display by the bureau was a preventive order and illustrated strikingly what should be avoided in order to secure fire safety. One feature of these displays (shown in Figs. 7, 8 and 9) consisted of the figures of two children, one poking a stick into a kitchen stove, and the other sitting close by, on the floor, playing with matches. The smoke pipe of this stove projected through an unprotected wooden partition, already charred around the opening. The wall back of the stove was also not properly protected. There was also shown two ashes containers, one of wood and one of metal. The wooden basket, filled with ashes, has partly burned, illustrating the hazard of placing hot ashes in an inflammable receiver in the basement.

In one of the displays (Fig. 9) the child sitting in the rocking chair was shown swathed in bandages with the legend: "I played with Matches!"

Other features of this exhibit were as follows:

An ironing board on which is an electric flatiron, with

(Continued on page 14)

Figs. 7 (Upper) and 8 (Center) Show Two Displays Arranged by Members of the Milwaukee Fire Inspection Bureau, Described in the Accompanying Article. Fig. 9 (Lower) Is a Variant of the Same Type of Display, With the Effect of Playing With Matches Strikingly Shown in the Case of the Child Sitting in the Rocking Chair.

Heavy Streams May Have Held Fire

Best Procedure Where Fast Spreading and Hot Fire Is Encountered With Limited Department—Suggested Method of Handling Fire

THE fire described in the last issue of this journal in the series on administration is typical of the planing mill fire. A good start, plenty of combustible material, insufficient fire protection and the complete destruction of the plant is the result.

The city in which this fire occurred has a population of approximately 8,000 and is located in the northwest section of the country.

The Fire Department

The fire department consists of three engine companies each equipped with triple combination machines and one truck company, having a city service ladder truck.

Two of the triple combination engines are 700 gallon capacity and the third of 500 gallon capacity.

A first alarm brings out Engine Cos. Nos. 1 and 2 (700 and 500 gallons respectively) and the city service truck.

A general alarm brings out the remaining engine company (700 gallon capacity).

The water supply surrounding the plant was limited, there being but a single 6 inch main from the city water system, a distance of over 1,000 feet. This 6 inch main was dead ended just beyond the plant.

Four hydrants were immediately available as shown on the diagram herewith.

The Plant

As shown in the diagram the plant consisted of five buildings and three large groups of lumber piles.

The largest building, the planing mill, was one story in height, of brick contruction with wooden roof. All interior construction was also of wood. This plant was equipped with the usual line of wood-working machinery typical of this size of mill, which was engaged in turning out doors, window frames, window sashes and similar articles.

Directly to the west of the planing mill, and at its southern end, was a one-story frame storehouse used for storing window sashes, etc. Just beyond this building was a row of two buildings and a large pile of lumber. One building, a one-story frame shed, was used for the storage of lumber; the other building was a one-story brick garage with a wooden roof.

Directly west of these two buildings and lumber piles were two large groups of piles in which lumber was stored until needed.

Still further west was a two-story frame storehouse for the storage of doors and other finished articles. This latter building was reached by a switch track from the railroad as shown in the diagram.

At the west end of the block was a large stove factory of brick and joist construction together with a small warehouse, two stories in height, of brick construction.

Condition of Plant

The planing mill inside represented the very poorest of "housekeeping." No provision was made for the disposal of shavings, and they were used largely for heating the building—heating being provided by two large iron stoves. It was in these stoves that all of the shavings were burned.

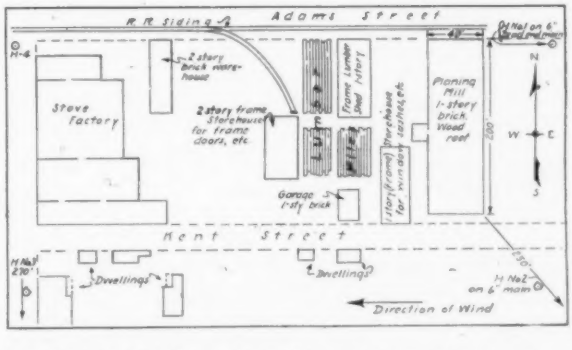
The Fire

The fire occurred during noon hour through one of the stoves setting fire to a pile of shavings. The shavings had not been afire more than a couple of minutes before the flames had reached a large pile of finished stock nearby. All hands were at lunch in a neighboring building and the fire was not discovered until smoke reached that building.

An alarm was immediately transmitted by telephone to the fire department which brought the first alarm assignment of Engine Cos. Nos. 1 and 2 and the truck company with a city service truck.

In the meantime an attempt was made, without success, to hold the fire, but no equipment being on hand, no progress was made.

By the time the first department had arrived fire had spread throughout the planing mill and it was evident that this building was destined to go to the ground. In operating at this fire Engine Co. No. 1 took hydrant No.



1 and stretched in a single line to the northern end of the building. A second line was laid shortly afterward to the east side of the building, operating through a window. Engine Co. No. 2 was stationed at hydrant No. 2 and a single line stretched to the south end of the planing mill. The third engine upon arriving was stationed at hydrant No. 3 and a single line stretched to the rear of the garage.

Suggested Method of Handling Fire

The chief fault in the operation at this fire seems to be the failure to use large nozzles.

Although a 6 inch main does not give an unlimited supply of water, where it is but slightly over 1,000 feet in length, and in good condition, it should be able to furnish the full capacity of the three engines responding to this alarm. Of course there will be but little pressure at the hydrants once the three engines get in operation, but there should be sufficient water to supply the engines.

A fire of this magnitude, and in this type of building with its highly inflammable contents, requires large quantities of water to kill it.

It is unlikely, indeed, that the fire could ever have been put out with the limited fire department facilities,

in the building in which it started, in view of the fast burning construction and contents. But it is believed that with proper arrangement of the lines that the fire could have been held to the one building, although this is but a conjecture.

The suggested placement of lines is as follows: Engine Co. No. 1 at hydrant No. 1 and two lines stretched along Adams Street to the leeward side of the fire building, at which point the two lines will be siamesed into a 1½-inch nozzle. This heavy stream can wet down the side of the planing mill and also cover exposures to the frame lumber shed as well as lumber piles.

Engine Co. No. 2 to be stationed at hydrant No. 2 and two lines stretched to a 1½-inch nozzle located alongside the one-story frame storehouse at the southwest corner of the planing mill. A 1½-inch nozzle at this point, with 60 pounds pressure would require around 520 gallons of water per minute which engine Co. No. 2 should be able to give, in view of the comparatively short stretch.

This stream can wet down the outside of the planing mill and prevent fire reaching the one story structure.

Engine Co. No. 3, to be placed at hydrant No. 3, and two lines stretched, with the assistance of members of the city service truck company to a point alongside the southern end of the lumber piles.

These two streams can be used for wetting down any incipient fires which may start and also for wetting down the lumber piles in an effort to prevent extension of the fire.

When conditions make it possible, these two lines may be shifted to a point nearer to the planing mill and aid in wetting down the fire in this building.

This arrangement of lines will require intense operation for a short while, but it is believed that if the 6 inch main is in good condition and a plenteous supply of water is maintained, the department can confine the fire to the one building.

This layout gives two 1½-inch nozzles and two 1 inch nozzles all operating on the fire.

George Cobb on Round the World Trip

George F. Cobb of Boston, Traffic Manager of both the International and New England Associations of Fire Chiefs, sailed from New York on the Franconia, Saturday, January 7, on a three-month vacation trip around the world.

He expects to reach San Francisco April 11 on his way back.

Woman Killed and Six Firemen Injured in Chicago Auto Crash

Squad No. 6, Chicago, while on the way to answer an alarm struck a taxicab. A woman, the occupant of the cab, was killed and six firemen on the fire apparatus were injured. The illustration shows the appearance of the truck after the accident.

R. S. Baughan New Chief of Norfolk

The new chief of the Norfolk, Va., Fire Department is Richard Spencer Baughan, whose portrait is presented herewith. He was appointed to this post last November when Chief Frank C. Petty was demoted to the position of deputy chief, upon his own request, owing to ill health.

Chief Richard S. Baughan, Norfolk, Va.

Chief Baughan was born in James City County, Virginia, on January 24, 1884. He first became identified with the Norfolk Fire Department in 1910, being appointed a hoseman on July 1 of that year He served in this capacity until October 19, 1921, when he was detailed to the chief's office as secretary to the Fire Division.

His first promotion came when he was made captain on June 12, 1922. Four years later, on December 27, 1926, he was again advanced, this time to deputy chief. This post he held until he became chief of the division on November 1, 1927.

A well deserved recognition was bestowed upon Chief Baughan, then deputy chief, when he was selected by the city manager during the latter part of the summer of 1927 to make a trip throughout the country to study the systems of operating fire departments in the various large cities. While on this official assignment Chief Baughan also attended the fifty-fifth annual convention of the International Association of Fire Chiefs at Portland, Ore., on August 9 to 12.

Drillmaster Trains Many Firemen

Did you ever hear of a traveling fire engineer and drillmaster? The chances are very much that you haven't, but there is every indication to believe that you will in the future.

F. A. Murray, a graduate of the Boston Fire College and who attended the New York Fire Drill School, has left the fire apparatus field and has started central fire schools. While traveling about he was often called upon to talk on modern fire fighting. He noticed how keen the firemen were for information on their work.

F. A. Murray

He prepared a drill course that could be applied to the small town and city fire department. Mr. Murray's method is to enroll ten fire departments into one class and to give them a course of training for three months covering such subjects as hydraulics, ventilation, study of heat, fire administration, fire prevention and discipline. The outside work consists of fire department evolutions.

On October 1, 1927, such a school was started with the following Connecticut departments enrolled: Ansonia, Derby, Shelton, West Shore, West Haven and Allingtown. The following in New York state enrolled: Beacon, Arlington, Hyde Park and Staatsburgh. The next class of ten departments will start in January and will run through to March.

During the summer months Mr. Murray intends to devote his time instructing full paid departments that have no drill school. The course will consist of two weeks of intensive training during the day with lectures in the evening. He was formerly chief at Morris Cove, Conn., for eight years and has been a fireman for sixteen years.

Fremont, Ohio, Issues Fire Department Bonds—Fremont, Ohio, has issued $15,000 bonds for the purchase of fire apparatus.

SALAMANDERS CAUSE MANY FIRES IN BUILDINGS UNDER CONSTRUCTION

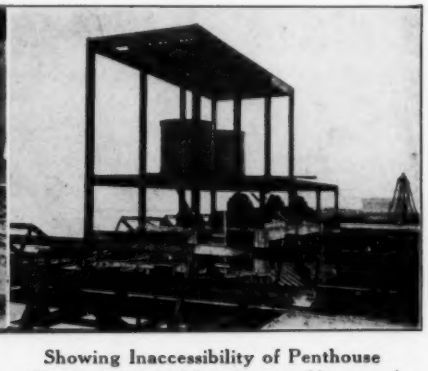
Hazard of Flying Sparks from Fuel Used—Wooden Supports for Concrete Forms Help Spread Fires

BUILDING construction during the winter months is accompanied by its own special fire hazards. Hay and straw for covering freshly poured concrete floors, tarpaulin for enclosing open structures, and canvas for filling window openings, all furnish highly combustible material for the start and spread of a fire. Salamanders for keeping concrete from freezing, or for the comfort of workmen, introduce a direct source of fire. This hazard is especially great when trash wood or other rubbish is used for fuel, because of the flying sparks. Fires are also frequently started by the wind blowing tarpaulins against salamanders.

In concrete buildings the forest of wooden supports for the forms furnish ready fuel. In unfinished buildings the absence of stairways makes it hard to carry up hose lines, and high winds, snow, and freezing weather often make fire-fighting difficult. About a year ago a $20,000 fire occurred in a thirteen story building under construction for Hibbard, Spencer & Bartlett Company, Chicago, Ill. The steel work of the building was completed, the brick walls were up to the third floor, and the concrete floors were poured in the lower ten stories. The elevator machinery had been installed in a temporary wooden penthouse above the roof.

Thirteen Stories Above the Ground

A salamander started a fire in the unfinished penthouse, damaging the elevator machinery to the extent of $20,000.



Showing Inaccessibility of Penthouse

Firemen had to haul hose lines up thirteen stories by means of contractor's derrick. Space below tanks was closed.

Tar paper for covering this enclosure was being warmed inside the penthouse by standing the rolls, slightly loosened, near a salamander. It is supposed that the paper unrolled and came in contact with the salamander, for the watchman discovered the paper on fire. With the aid of some workmen he endeavored to throw the rolls from the penthouse, but the dense smoke drove them out. A barrel of water had been provided in the enclosure, but was located in the opposite end from the entrance and could not be reached. The fire department, which responded to a telephone call, had a hose line hauled up by means of one of the construction derricks and thus extinguished the fire, which by this time had nearly burned itself out. Three motor generator sets were practically destroyed and the elevator machinery was badly damaged.

When salamanders are used in construction work:

Use coke for fuel instead of wood trash and rubbish.
Keep surroundings free from combustibles.
Provide adequate first aid fire equipment in accessible locations.
Securely fasten tarpauliin covers.
Have watchman always on duty.

—Factory Mutual Record.

A remedy for the trouble has been suggested by A. A. Bell, one of the foremost authorities on industrial fire protection and a member of the editorial advisory board of FIRE ENGINEERING.

As fast as the building is being constructed, the standpipe of the building should be carried up and capped. That is if the building construction has progressed up to the sixth floor, the standpipe should be constructed from the street level to the sixth floor and capped, and outlets should be provided at each floor. When the work is carried up an additional floor, the cap should be removed from the pipe and the water supply carried up the additional floor.

Should any fire occur while the building construction is going on, it is only necessary for the fire department to connect to the standpipe and connect hose lines at the floor on which the fire occurred. This does away with the difficulty of carrying hose lines into buildings that are under construction. The standpipe need not be charged with water for it takes but a few seconds for the fire department to fill it. Hence there would be no danger of the pipe freezing up in cold weather when the salamanders are being used.

Massachusetts Chiefs Meet

The December meeting of the Fire Chiefs' Club of Massachusetts was held on December 21 at the plant of the Hood Rubber Company in Watertown.

More than 125 chiefs were present at the luncheon which was served in the cafeteria on the top floor of the administration building. The visitors were shown through the factory in groups of eight or ten and saw automobile tires, flooring, battery boxes, sneakers, heels, and rubber boots in various stages of manufacture.

Chief Patrick J. Hurley, of Holyoke, president of the club, and Chief William H. Hill, of Belmont, secretary, were among those at the head table for the luncheon. Dr. Quinby, of the Hood Rubber Company, welcomed the guests in behalf of the firm.

Chief John W. O'Hearn, of Watertown, described the fire protection system of the plant and praised the management very highly, saying that every recommendation he made had been quickly carried out.

Announcement was made of the election to membership in the club of Chief A. W. Torrey, of North Scituate.

HARRY BELKNAP.

Pay of Knoxville Firemen Increased

Santa Claus came early in Knoxville, Tenn. That venerable, old gentleman made many fireman happy by his visit that was that was in advance of his advertised arrival. Knoxville firemen now believe that there is a Santa Claus, after all.

About eighty per cent of the firemen received a pay increase of $7.50. Previous to the increase, the men received $150 a month. The new salary became effective from November 1 and it has been approved by City Manager Roehl and Safety Director Spence besides receiving the support of Chief Sam Boyd.

Modern Ways Cause English Fires

According to a survey conducted by insurance companies, the Americanization of English country homes is responsible for the number of such buildings that have been destroyed by fire in recent years.

Steam heating and electricity has been brought into these old buildings. It has been stated that the flues of these old homes were not constructed to withstand the heat generated by big furnaces. The damage in 1926 to English country homes amounted to about $43,000,000.

Marion, Ill., Truck in Crash

Fire apparatus from Marion, Ill., crashed into a pole while on the way to a fire. Chief Harry Cash, Assistant Chief Arlie Ing and a fireman were injured when the apparatus overturned three times.

Both West Frankfort and Johnson City sent fire apparatus later to fight a blaze that destroyed two homes. Chief Sisk of West Frankfort and his apparatus remained in Marion to answer any alarms that might come in.

Instructing the Public Through Exhibits

(Continued from page 10)

a hole burned in the cloth. This display also emphasized the improper use of an electric iron.

An open fire place, showing the use of proper screen protection to prevent sparks from flying out.

An electric heater, over which someone had carelessly thrown a bath-towel, with the result that the latter was badly burned. An electric bulb, with a towel thrown over it was also shown, with the towel well scorched.

Two gas plates, one on a wooden box, partly burned, with the wall behind not properly protected, and an old rubber tube for a connection; the other plate with metal legs, properly constructed, with metal legs and a correct pipe connection. This was to show the right and wrong way of making such installations.

An awning upon which someone had thrown a lighted

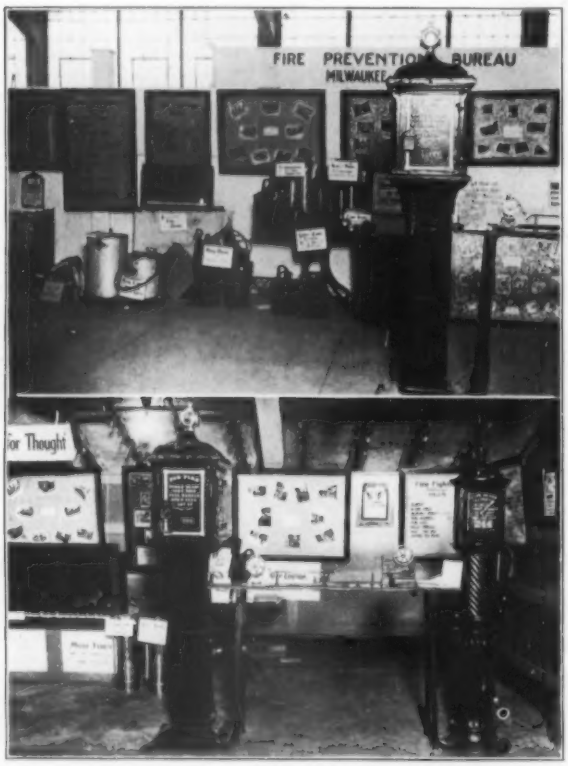


Fig. 5 (Upper). A Booth Arranged by the Milwaukee Fire Inspection Bureau, Showing Various Types of Fire Extinguishers, Safety Cans for Volatible Liquids, Metal Containers for Oily Rags, Outside Incinerator for Burning Rubbish, etc. Fig. 6 (Lower). An Adjoining Booth, Showing Two Types of Fire Alarm Boxes. The Public was Allowed to Operate These Boxes Under Supervision of Members of the Bureau.

cigarette, from an uper window, a hole being burned where the fire struck it.

All of these displays were provided with well worded signs, plainly explaining what they were intended to show, and calling attention to the various dangers the public must avoid.

At all of these exhibitions two men of the bureau were detailed for demonstration work and to answer all of the questions of those viewing the exhibits in a courteous manner. These men also distributed the fire prevention literature prepared by the bureau.

FIRE LOSSES IN NEW YORK CITY REDUCED MORE THAN $3,000,000

Figures Made Public by Comm. Dorman—Firemen Detailed to 269 Theatres—Number of New Fire Stations Opened Past Year

By William Jerome Daly

A DECREASE of over $3,000,000 in losses and a reduction of approximately 1,000 fires are reported for the year 1927 by Fire Commissioner John J. Dorman who attributes the improvement to "fire prevention education, greater activity by the inspection forces of the department and a more rigid surveillance of the moral hazards."

The Commissioner's survey of the records of the fire department on the closing day of the old year, disclosed that there were about 24,000 fires in 1927, as compared with 25,125 in the year 1926; a property loss estimated at $18,660,905 in 1927 as compared with $21,671,735 for the year 1926. The 1926 losses were fourteen per cent higher than 1925.

A vigorous campaign of inspection was conducted by the Fire Prevention Bureau in which special attention was given to unlicensed garages located principally in the frame dwelling districts. There were 179,254 inspections, an increase of 6,757 or approximately twenty additional daily inspections. This brought an increase of $105,876 in revenues from licenses and permits, the total of which amounted to $824,359 for the year 1927. The number of permits granted for garages, gasoline selling stations and similar enterprises was 95,902, an increase of 10,744 over the year 1926. The Fire Prevention Bureau issued 34,682 orders to correct violations of the law, which was 6,625 more than were issued in 1926.

There were 98 persons killed in fires which was 33 less than the number killed in 1926; 290 persons were injured which was 10 more than in 1926. There were 69 arrests for arson, 11 of which embraced one coterie of firebugs implicated in one warehouse fire. Of the 69 persons arrested for arson, a total of 41 convictions were obtained, the remainder awaiting trial.

Of the 24,000 fires, 6,800 were in tenement houses, a decrease of 704; factory buildings had 1,672 fires, a decrease of 208; retail stores had 1,600 fires, a decrease of 213.

Out of a budget of nineteen and one half millions of dollars for the year 1927, there was turned back to the city treasury $200,000 in accruals, but approximately $20,000 of this will be used to pay salary adjustments of firemen who were formerly in the Police Department and whose service therein has now been credited to their Fire Department record with proportionate advances in grades and rates of pay.

During the year, three new engine companies and four new hook and ladder companies were placed in service at three locations—the Flatlands and Rugby sections of Brooklyn and the Springfield section of Queens. Bids were opened late in December for seven new fire engine houses to be constructed at Flushing, Gravesend, Brooklyn Heights, Astoria, Arverne, Great Kills and Eastchester.

The department acquired twenty motor tractors, twelve pumping engines, twelve ladder trucks and twelve hose tenders. Six of the twelve new pumping engines are extra size, of 1,000 gallons per minute capacity. The department bought 136,000 feet of hose of three different sizes.

Thirty new theatres opened during the year brought the total of amusement places to be protected by firemen detailed during each performance up to 269. Twenty years ago there were only 63 theatres to be thus protected. This increased the demand on the services of the Division of Public Assembly in assigning firemen from Brooklyn fire companies to theatres in the Broadway district.

The curfew law sponsored by Mayor Walker necessitated fire protection supervision over cabarets, licensed night clubs and dance halls. The Fire Department is now annually supervising the fire protection facilities of places of public amusement seating an average of 1,100,000 persons daily.

In the fire alarm telegraph branch of the department, 1,000 new fire alarm boxes were installed for service, mainly in Brooklyn, the Bronx and Queens and 100,000 was appropriated for 1,500 more alarm boxes to be installed this year. A contract was let and is now nearing completion for equipping new fire alarm central operating station in Forest Park, Queens; twelve miles of fire alarm cable were laid underground in Brooklyn; the entire fire alarm plant in Long Island City was improved with a 100 per cent increase in the number of street alarm boxes, the number of circuits was increased from two to six and wherever possible all wires were placed in conduits. A new cable connecting the Rockaway central fire alarm station with the new Queens central station was installed along and under the Cross Bay Boulevard,

(Continued on page 34)

WITH THE EDITOR

The Trend of Roofing Laws

Another city has just swung into line in the matter of the prohibition of inflammable roofing. San Francisco, through its Board of Supervisors, at the end of 1927, adopted an ordinance with two important provisions. One of these extends the boundaries of the area in which the inflammable shingle can no longer be used to practically the entire city, only a small district being exempted. The other section of the law of notable importance provides that any existing roof of inflammable material which has been damaged to the extent of 20 per cent of its area, must be replaced by fire resistant material.

Few enactments of recent years have had such a sweeping effect upon the reduction of fire losses as those abolishing the inflammable roof coverings from cities and populous centers. There are so many varieties of non-inflammable roof covering which are only slightly more expensive than the wooden shingle, that there is little excuse for builders even of the cheaper variety of dwelling to side-step their responsibility to the public by placing this hazardous covering on their structures. But, unless compelled by law, the more unscrupulous ones will continue this practice in order to save a few dollars in the general expense of building.

Such laws have proved a boon to fire prevention, and are removing one of the great causes of conflagrations in districts in which congested buildings are placed near to each other. With this hazard removed the control of a fire in such a district is rendered much simpler and the risk of conflagration lessened to a great degree.

Unique Explanation of English Fires

England has, during the past year, suffered an epidemic of disastrous fires among its splendid old mansions. The old country is particularly rich in this type of historical dwelling. Some of these structures were built centuries ago, and practically all are redolent with romantic associations of the past. The loss of so many of these ancient structures by fire has naturally created a profound sensation in the "tight little isle," and the English experts in fire prevention have been investigating the matter to discover the cause of such widespread destruction.

According to a recent news despatch, the mystery has been solved. The discovered cause has been the adoption of American methods of heating and lighting!

As a matter of fact, the fault lies not so much in the adoption of modern methods as in the methods of adoption. Holy writ emphasizes the fact that it is not wise to put "new wine in old bottles!" And that is exactly what the English architects, in remodeling these old structures to conform with American practice in lighting and heating, have done.

It is quite natural that the installation of steam heating plants, with the intense heat evolved from such furnaces, should overtax the ancient flues, with crumbling mortar separating the brick or stone, and no doubt, in many instances, with exposed wooden beams in too near proximity to this added temperature, not dreamed of by the original builders. It is a pretty safe assertion to make, that if the original flues of these mansions, so precious to the tradition loving Briton, had been rebuilt or properly lined, most of the valued old structures would be standing today.

If modern methods are to be used they must be adopted not in part but as a whole, or disaster is pretty sure to be the result. The fires in the old English mansions are a striking proof of this principle.

Is Smoke Inhalation a Compensable Accident?

There is a very interesting test case now pending in the Courts of Michigan, the decision on which should have a very important bearing on accident compensation in the case of the fireman.

A member of the Saginaw Fire Department died from the effects of smoke inhalation at a fire, and counsel for the family of the deceased claimed compensation from the city under the law. He was sustained by a deputy commissioner of the Department of Labor and Industry. The city council decided to fight this decision and has carried the case to the state courts, on the ground that the inhalation of smoke is a regular incident of the fireman's life.

Of course, it is impossible to tell from what slant the courts will view such a case. It would seem, however, that, from the standpoint of both justice and common sense, the deputy was right in his decision in favor of the fireman's family. It is quite true and undeniable that the inhalation of smoke is a daily occurrence in the life of a fireman. But so is the bruise and other minor injury. And yet if a bruise proves fatal, or even serious, compensation is allowed. Why not consider the question of smoke inhalation in the same light?

Is a man any the less dead because he died from asphyxia rather than building collapse?

Can it be held that because he died from smoke inhalation at a fire he cannot be credited with losing his life in the discharge of his duties?

Is it to be argued that the fireman is to be cut off from the benefits of the compensatory law on account of the chief peril to which his profession subjects him? It would seem that the primary object of the compensation act is—the protection of the man who subjects him-

self to these dangers in the interests of the citizens' safety, or the relief of his family in case of his demise in this service.

It is a poor argument to advance that the fireman goes into this service with his eyes open and knowing the dangers he must face. Of course he does, and more credit to him! But this fact does not relieve the city he serves from the moral obligation to care for him if injured or disabled in its service.

Chief Jesse of Lexington, Resigns

W. A. Jesse, chief of the fire department in Lexington, Ky., for twenty-four years, asked to be permitted to retire. His request was granted and took effect January 1.

Chief Jesse has been troubled lately by rheumatism. Many alarms have come in which the chief has been unable to attend. He believes that it is time that he received his well earned rest and that some younger man be given the responsibilities of the department.

Chief W. A. Jesse

Prior to his appointment as chief, Jesse was chief of the police department for three years. When the post of chief of the fire department was vacated by Chief George W. Muir, Mr. Jesse was appointed.

New Roofing Law

A fireproof roofing ordinance characterized by Fire Chief Thomas R. Murphy as "the most constructive piece of fire prevention legislation in years," was adopted December 27th by the San Francisco Board of Supervisors.

The ordinance, passed after nearly two hours of debate, contains two important provisions:

It enlarges the area in which fire-resistant roofing must be used, to cover virtually the entire city, excepting only a small district south of Mission street.

It provides that when existing roofs of non-resistant material are damaged to the extent of twenty per cent of their area, they must be entirely replaced with legal roofing. The previous limit was forty per cent.

Passage of the ordinance came at the close of the 18 months campaign by Fire Chief Murphy and the Board of Fire Wardens. The section extending the area was adopted unanimously. Five supervisors voted against the section reducing the mandatory forty per cent provision to the much more drastic twenty per cent requirement.

Through this action of the board, the fireproof roof district now includes the Marina; Richmond, Sunset, West of Twin Peaks, and all of the Mission district except the industrial area, as well as the downtown section and Western addition, which were already within the fireproof area.

Within the boundaries of the fireproof district all new structures must be provided with approved roofs of tar and gravel, composition shingles, tile, sheet metal, slate, asbestos, or similar flame resisting substances.

Chief Murphy refused to agree to any modification of the twenty per cent provision. Henceforth when any roof in the district is damaged from any cause to the extent of twenty per cent or more of its area, the Board of Works will refuse to issue a permit for repairs. The roof must be completely replaced, with approved fire resistant covering.

The ordinance will become effective early in the new year, if it goes through the normal routine.

CHARLES W. GEIGER.

Convicted for Sending False Alarm

There is one colored man in Hartsville, S. C., who now knows that fire alarm boxes are not intended for playthings. He has had the option of paying a fine of one hundred dollars or of serving sixty days on the road.

The alarm came in from the colored section of the town just as church service was over. The alarm brought out one thing in a very forceful manner. The city realizes that it must take steps to regulate the automobile traffic so that the fire department will not be hampered.

Had there been a real fire that night, fire department officials believe that it would have been impossible to save the building. All street and alleys were blocked with motorists who rushed to see the fire. The fire apparatus had to detour in order to find some way to get near the building. Autos were lined up five in a row across the street within ten feet of the apparatus.

Chief H. Leland Law has recommended that an ordinance be passed whereby all motorists coming within 150 yards of the fire truck will be charged with violation of the law. The chief pointed out that firemen have police authority at fires and have the right to turn in names of any person violating the customary regulations.

Soviet Russia Orders Fire Apparatus

Soviet Russia has ordered equipment for the protection of an oil refinery and tank farm in far-off Caucasus through the Amtorg Trading Corporation of New York, their purchasing agents. The order was placed with the American-LaFrance & Foamite Corporation.

The equipment includes the two-solution system for making foam. An engineer from this company will supervise the installation of the equipment for the Russian government. It is believed that the installation will require at least a year.

The property has thirty-four 115-foot tanks and nine 78-foot tanks. The government contemplates the addition of eleven 77-foot tanks, thirty 61-foot tanks and nine 50-foot tanks.

Soviet Russia is making an effort to develop the country along industrial lines, and it is believed that other orders for fire protection equipment and apparatus will follow.

Chief McBride Praised for Work

Greece, N. Y., is a township of about 5,000 people, bordering Rochester. In this township there are the fire departments of North Greece and the Barnard department. The new organization, under the leadership of Chief Errol McBride (right), has a volunteer membership of 119 but is without fire apparatus. Chief William F. Schmitt (left) congratulated McBride on his good work. A petition will be presented to form a new fire district so as to finance the purchase of apparatus for the company.

Chief Schmitt Congratulating Chief McBride for Good Work

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified.

Chemical vs. Water Line

To the Editor:

We have been instructed, and I understand the reasons, that in case of an inside fire to first lay the chemical hose line, but at the same time have the fire hose line laid to use in case of emergency.

Our department consisted only of chemical equipment until last June when a 400-gallon pumper was purchased. Recently upon responding to a first alarm with our equipment, it was quite uncertain at first sight whether to use the chemical equipment or not. The chemical equipment, however, received my first consideration, but it occurred to me that should this prove ineffective we would have to move on about 200 feet further to a hydrant and thereby lose time in making a hook-up. And most of all, I could not see how to dispose of the chemical line in making this latter move and on which point I would like some enlightenment. We used an adjustable nozzle and did the work with only minor water damage.

Now what I would like to know is: Should I have used the chemical first? (I believe it would have been sufficient.) If the chemical line had been used, would I have been justified in dragging the chemical hose along with the truck to the hydrant or should I have taken time to drag in chemical line and pile same on truck? Or, should I have cut the chemical line at the tank; and would I have been justified to kink the chemical hose to prevent the back flow while we were uncoupling? (At that time our chemical hose spanners were in the general tool box on the truck, but I am having a small box made to carry them just beneath the tank.)

Thanking you for whatever assistance you can give me, I am,

Very truly yours,
D. R.

Answer: The action you took in handling the fire was correct. If it is a question of choosing between the chemical line and the water line, particularly where you know the fire has gained some headway, the water line should be employed and the chemical disregarded. It would have been bad business to stretch in a chemical line, finding possibly that it was not sufficient to handle the fire and then be required to move the apparatus and stretch in the water line. This delay might have proven serious, for once fire has gotten beyond the control of the chemical line it is high time to get water streams in operation.

The practice of stretching in a chemical line and backing it up with a water line is ideal, where both can be stretched at the same time. But where you have to make a choice of the two, and where there would be a delay in changing from one to the other in the event that the first one did not serve, it would be poor judgment to employ the chemical line first.

Bresnan Nozzle

To the Editor:

In the May issue of The Fire Engineer 1925, page 201, a Bresnan nozzle is described as follows: "It is supplied with nine orifices. Three of these are ¾-inch in diameter and six are ½-inch in diameter. Its maximum range in any direction may be considered as 15 feet, or 30 feet in diameter."

The following description appears in a fire book; "The Bresnan nozzle distributes water in all directions and will cover a space of 40 feet square. Six of the nine holes or orifices are ½-inch in diameter and three are ⅝-inch in diameter."

Which one of the above descriptions do you consider is the correct one?

E. G.

Answer: The description as given in the Fire Engineer of 1925 is correct insofar as the Bresnan nozzle used in the New York Fire Department is concerned. You'll appreciate that different manufacturers make Bresnan nozzles and their products are not uniform insofar as the diameter of the nozzles are concerned. The New York Bresnan nozzle has three ¾ inch outlets and six ½ inch. The range of streams from these outlets as given is approximately correct for an average pressure employed. The greater the pressure, of course, the greater will be the coverage.

Preventing Water from Freezing

To the Editor:

I would appreciate your giving information relative to a formula used in preventing water from freezing which is stored in barrels and which is to be used for fire purposes only.

R. R. T.

Answer: Sodium chloride (salt) and calcium chloride are used to prevent water barrels and buckets for fire purposes from freezing.

The proportion of these materials which must be added to reduce the freezing point of water to any desired point is shown in the following tables:

Freezing Point of Sodium Chloride (Salt) Solutions

Per cent of salt by wt.	1%	5%	10%	15%	20%	25%
Wt. of 1 gal., lbs.	8.4	8.65	8.95	9.30	9.60	9.94
Freezing point, deg. F.	31.8	25.4	18.6	12.2	6.86	1.00
Wt. of 1 cu. ft. lb.	62.8	64.7	66.95	69.57	71.76	74.26

Freezing Point of Calcium Chloride Solutions
(75 Per Cent Grade of Calcium Chloride)

Lbs. per gallon	3.76	3.36	2.95	2.56	2.18	1.80	1.43
Freezing point, Fahr.	32.6	19.5	8.7	0.00	7.5	13.3	18.5

Engines in Tandem

To the Editor:

Will you please answer the following:

Given two gear pumping engines, neither of which can deliver over 200 pounds pressure.

"A" says these cannot be hooked up to deliver over 200 pounds pressure in any manner.

"B" says that by hooking the engines in series (that is discharge of first into suction of second) that theoretically 400 pounds pressure may be developed—actually about 350 pounds.

Your answer to the above will be greatly appreciated.

D. M.

Answer: Where you have two pumpers each capable of creating 200 pounds pressure, a pressure of nearly 400 pounds may be secured by placing the two engines in tandem. By this arrangement, one engine discharges water under around 200 pounds pressure to the second engine which takes the water at this pressure and raises it again by 200 pounds. Of course there is some loss due to the friction of the water in the fittings and hose connecting the two pumpers so that the discharge pressure of the second engine will be less than 400 pounds. A pressure of around 350

pounds would be safe as an assumption for the discharge pressure from the second engine.

Some Comments on Hydraulics

To the Editor:

Permit me to draw your attention to the article in the November 30th issue of FIRE ENGINEERING on page 1209:

First — sub-title "Friction loss in Long Pipes and Hose." Note error in statement for Rule 3 — should read "inversely as fifth power, etc."

Second — sub-title "Applying the Second and Third Laws." There are slight errors here in the figures printed but of course it does work out about right.

Third — First paragraph is wrong in statement for Rule 3. Now, how does he work out the loss of 52 pounds for discharge of 500 g. p. m. through 500 feet of 4 inch pipe; and 7.2 pounds for the 6 in? (I note proportion is about 7 here.)

Am I correct here? (Use $2Q^2 + Q$). $5 \times 5 = (25) \times 2 = (50) + 5 = (55^2) \times 5 = 275$ pounds for loss in 500 feet of 2½ inch hose — delivery 500 g. p. m.

Dividing 275 pounds by 11, a factor for 4 inch hose (or pipe?) we get 27 pounds for the loss by friction for 500 feet of 4 inch pipe with a flow of 500 g. p. m.

Dividing 275 pounds by 80, a factor for 6 inch pipe we get 3.4 pounds for the loss by friction for 500 feet of 6 inch pipe with flow of 500 g. p. m.

I am a constant reader of your journal and would appreciate very much your working these problems for me.

Very truly yours,
B. F.

Answer: You are correct in your first statement that the rule should read: "Friction loss varies inversely as the 5th power, etc."

The fact that the author of the article referred to apparently used the 5th power in his calculation showed that he understood the rule although did not state it completely in the article.

Also your third statement regarding the same rule is justified.

As to getting friction loss in pipe lines, while this is sometimes employed on the basis of friction loss in fire hose, the results so secured are not correct. For example, note the following figures: The friction loss in 500 feet of 4 inch pipe carrying 500 gallons per minute is as follows:

Cast iron pipe of excellent quality, new, and laid straight, 27 pounds per 500 feet; good cast iron pipe, comparatively new, 32 lbs. per 500 feet; cast iron pipe four years old, 45 lbs.; cast iron pipe 13 years old, 62 lbs.; 26 years old, 93 lbs.; 45 years, 161 lbs.; 75 years old, 336 lbs.

You will see from the above that age affects very greatly the average carrying capacity of cast iron pipe.

It is likely that the author of the article you refer to assumed cast iron pipe of an age between four and thirteen years as you will note by the above figures.

The method you employ for finding the friction loss in 4½ inch hose is substantially correct and is the method usually employed where tables of actual test figures are not available.

Values of "K"

To the Editor:

Could you please give me the divisor for finding K for solving nozzle pressure on the following:

Single line 1½ inch hose
Single line 3 inch hose
Single line 3 inch hose with 2½ inch couplings
Two lines 2½ inch hose siamesed
Two lines 3 inch hose siamesed
Two lines 3 inch hose with 2½ inch couplings (siamesed)

I understand on a single line of 2½ inch hose you use the fourth power of the diameter of the nozzle divided by 10. This information probably has been published in FIRE ENGINEERING, but I have missed it and have been unable to locate it.

M. H. R.

Answer: "K" is a constant, varying with size of nozzle and hose. See table following:

	K for					
	Single Line 2½" Hose	Single Line 3" Hose	Single Line 3½" Hose	Two 2½" Lines Siamesed	Two 3" Lines Siamesed	3 Lines 2½" Hose
1.....	.105	.038	.....	.025	.....	.....
1⅛.....	.167	.062	.....	.043	.....	.....
1¼.....	.248	.092	.039	.066	.023	.028
1⅜.....	.341	.137	.059	.096	.034	.043
1½.....	.505	.192	.084	.135	.051	.061
1⅝.....	.680	.266	.113	.184	.068	.084
1¾.....	.907	.351	.152	.242	.093	.115
2.....	1.550	.605	.250	.418	.157	.190

Where you have the value of K for a nozzle on 2½-inch hose, you can find the approximate values of K for other diameters of hose using the same size nozzle by dividing by the following conversion factors: 1½-inch hose 0.074; 3-inch hose 2.6; for 3-inch hose with 2½-inch coupling, no factor is available, but it may be mentioned that the 2½-inch coupling on 3-inch hose increases the friction loss not more than 5%. For two parallel lines of 2½-inch hose, 3.6; for two parallel lines of 3-inch hose, 9.35; two lines of 3-inch hose with 2½-inch couplings, no conversion factor can be given.

Origin of Insignias

To the Editor:

Will you kindly advise as to how the use of crossed trumpets, and trumpets in a vertical and horizontal position on insignias indicating the rank of superior officers and company commanders of fire department organizations originated?

This question was asked me recently and I was unable to answer it. If you can give me any information along these lines I will greatly appreciate your assistance.

Yours very truly,
R. F.

Answer. We have been unable to secure any information on the above question. Possibly some of our readers can furnish us with the information requested. Information will be appreciated by the inquirer as well as the Editor.

Two Platoons in Jersey

To the Editor:

We are anxious to secure the names of cities in New Jersey that have paid fire departments working under the two-platoon system.

Any information you can give us on the above will be gratefully received. C. D.

Answer. New Jersey fire departments having two-platoon systems are as follows: Atlantic City, Camden, Clifton, Elizabeth, Hoboken, Jersey City, Newark, Passaic, Trenton, Union, West Hoboken and West New York.

Edgemere, L. T., to Have New Fire Station—Plans have been drawn for a new fire station to be erected at Edgemere, L. I., N. Y. The board of estimate has appropriated $80,000 for the new building.

San Francisco Awards Tied by Deadlock—A deadlock among the San Francisco fire commissioners has tied up awarding contracts on $50,000 worth of fire apparatus and equipment. One faction is determined to purchase one type of apparatus and the other, another type.

Gladbrook, Ia., Fire Apparatus Destroyed—The fire that destroyed a garage in Gladbrook, Ia., also burnt the local fire apparatus that was housed in the garage. Some hose was saved. Traer, a neighboring department, responded to a call for help and succeeded in keeping the fire within the building.

Pomona, Cal., Firemen Get Pay Increase—Firemen in Pomona, Cal., received a five-dollar pay increase. The men had formerly applied for more money in March, 1927. Firemen during the apprenticeship term will now receive $125 a month and the pay will be increased to $140.

Fire Loss Decreases in Spokane, Wash.—There is a decrease of $216,228 in the 1927 fire losses in Spokane, Wash., over the 1926 figures. The number of alarms, however, has increased. The greatest loss was the $106,000 loss of the B. G. Ewing Paper Co.

N. Y. FIREMEN ESCAPE DEATH AS BUILDING CRASHES AT FIRE

Famous Butler Brothers' Structure Collapses—Was of Old Style Architecture in High Pressure Zone—Chief Kenlon Responds on Third

By WILLIAM JEROME DALY

DIFFICULTY experienced trying to gain an entrance by opening the red hot corrugated iron doors and shutters of one of New York City's oldest dry goods houses, saved the lives of at least twenty-five fireman at one a. m., December 29, when eight floors and the roof fell into the burning cellar. The crash affected an area of about thirty-six by fifty feet.

Chief John Kenlon's remark best summed up the situation. He said, "I thank Almighty God for the luckiest break in my whole career."

There was not a single fireman hurt.

The fire was in Butler Bros., Inc., general merchandise and mail order house—one of the oldest of its kind in the country and located since the building was erected in 1892 at No. 475–497 Broadway, westside, extending through to 66–68 Mercer Street. The building is 50 x 200 feet, heavily stocked in the basement and sub-basement. Some of the tenants included converters and jobbers in cotton and dress goods, neckware, army goods, trimmings and braids, buttons and jets, millinery, laces, bed spreads, novelty slippers, etc. There were show rooms and stock rooms but the floors were not what one would call overstocked.

The building was put up in the days when hollow cast iron unprotected columns were set up in the middle of buildings from the cellar to the roof. These columns are about sixteen inches in diameter and they diminish or converge in size as they go upward through the building, from floor to floor. The columns were set at about twelve feet apart. From each cast iron column to each sidewall there was a 25-foot steel girder resting in the brick; also there was on each floor a lengthwise steel girder bracing the upright columns and extending the length of the building.

The girders were secured to the columns by means of lugs or brackets, so far as could be ascertained by examination of the columns still standing. The authorities prefer to await the clearance of the debris and a minute examination of the lowermost columns within the collapsed area, before venturing an official opinion as to the cause of the collapse, but it does seem at this writing that the collapse was due evidently and apparently to the buckling, cracking or collapse of the cellar columns for it was in the cellar that the fire apparently started and its headway was such at the time that it was discovered by a passing policeman that the entire rear of the building from cellar to roof was a mass of flames—tongues shooting skyward—and the heat was blistering the premises across the street. There was no watchman.

Two freight elevator shafts on the Mercer street side where all of the fire was, lent a fast and furious channel of travel for the flames. These elevator shafts had ordinary wood doors with stained glass panels on each floor. There was a (dry) standpipe system with Siamese connections back and front.

The building is equipped with automatic fire alarm system, but the records of the fire department do not disclose that any such automatic alarm was received. The first public information about the fire came from the passing policeman who snapped the street alarm box No. 321 at Mercer and Broome streets at 12:57 a. m., bringing four engine companies, two hook and ladder trucks, one water tower, one rescue company, two battalion chiefs and one deputy chief of department.

The building is located in the high pressure zone, in what was once known in New York as the "old sweat shop" or high hazard district.

The commanding officer first due was Deputy Chief Henry B. Helm, a veteran in that particular district. He ordered a second alarm which was received and transmitted at 1:06 a. m. This brought Asst. Chief Thomas F. Dougherty. The fire was up the two freight elevator shafts and the iron shutters spelled a condition of the most intense heat. Chief Helm ordered a third alarm at 1:08 o'clock.

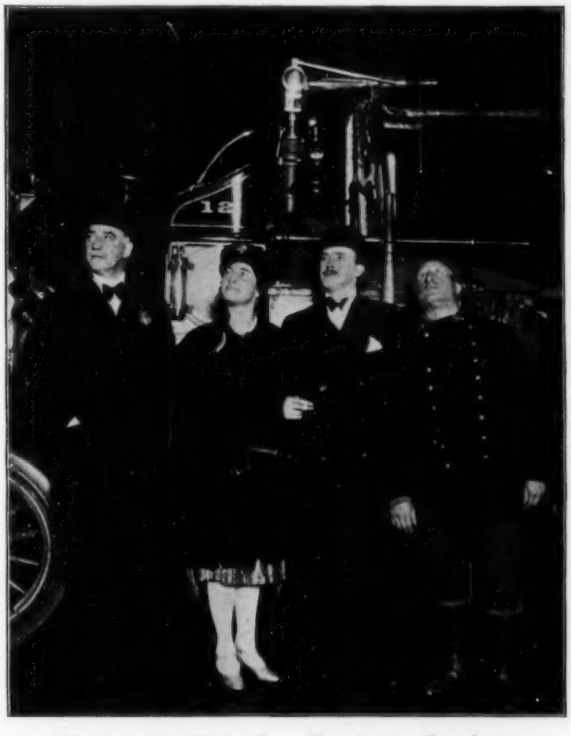
While firemen of the first and second alarm assignments were trying to force the red hot doors and shutters on the Mercer street side, others were gaining an entrance through the Broadway side which was smoky but not showing fire. Then the collapse occurred, just as the third alarm companies were reporting in.

From that time on the fire made no further headway. It was extinguished under the personal command of Chief Kenlon, who responded on the third alarm. The columns that collapsed were second and third in from Mercer street, or approximately twenty-four feet from the Mercer street front.

The collapse of these unprotected columns has given Chief Kenlon much concern. He ordered a searching investigation to be made next day by Deputy Chief John J. T. Waldron of the 2nd Division, who was not at the fire. Chief Waldron's report is now in Chief Kenlon's hands.

The fire and the collapse of the floors again demonstrates the hazard of unprotected iron columns such as supported the floors of this building. The condition may yet result in a recommendation to either protect such columns, or at least require such buildings to be completely equipped with automatic sprinklers.

The fire attracted an unusually large crowd of home-going theatre folk, among whom were Fire Commissioner John J. Dorman and his daughter, Miss Winifred Dorman, with her fiance,



Watching the Butler Store Burning on Broadway

Left to right—Fire Commissioner John J. Dorman, Miss Winifred Dorman, his daughter, Mr. John J. Ronan and Hon. Deputy Chief R. H. Mainzer. Miss Dorman is wearing Chief Mainzer's coat and cap and is holding his flashlight.

Mr. John J. Ronan. They followed the fire engines, arriving in time to witness the entire spectacle. Miss Dorman donned the turn-outs of Honorary Deputy Chief Robert H. Mainzer, as shown in the photograph.

Boston Has 4-Alarm Hotel Fire

Four alarms were sounded early in the evening of December 15 for a fire which swept the upper floors of the Hotel Elliott, an old 6-story brick building in the Elliott Square section of the Roxbury district in Boston, Mass.

The first alarm was sounded from Box 2252, corner of Dudley and Putnam streets, at 8:11 p. m. District Chief Frank Sheeran ordered a second alarm immediately upon his arrival at 8:15. This brought additional apparatus and Chief Daniel F. Sennott to the scene. Chief Sennott ordered a third alarm at 8:25 and a fourth alarm at 8:36.

The fire originated from an undetermined cause, possibly a bolt of lightning, and flames shot up through a former dumbwaiter shaft that was used as a paper chute and which was partly filled with waste paper. The flames after shooting up from the second floor through the shaft mushroomed on the two upper floors and there was a hot air explosion in the space between the ceiling of the top floor and the roof which aided in spreading the fire.

Some daring rescues were made by the crew of Ladder Company No. 12 under Lieutenant Edward F. Doyle. Four persons were brought down from a top story window in the rear over an extension ladder on Blanchard street, a ten foot street at the

side of the building. There were seventy-persons in the building and most of these made their way out by the front stairs. Those on the top floor were trapped until rescued by the ladder company. One woman died from exhaustion on the way to a hospital.

All lights in the building went out soon after the start of the fire and the darkness added to the confusion of the tenants. The flames raged fiercely on the two upper floors and extended

Part of Hotel Elliott Ruins in Boston

down to the third floor. Sections of roof coping fell to the street and menaced firemen. Two wagon guns were used and lines were taken over stairways and ladders and to the roofs of nearby houses.

The department laid 10,350 feet of 2½-inch cotton rubber lined hose. Nozzles on mobile lines were 1¼-inch. On the two Morse wagon guns, 1¾-inch tips were used. There were plenty of Lowry hydrants and some post hydrants available.

Chief Sennott was assisted by the following officers at the fire: Assistant Chief Henry A. Fox, Deputy Chief Frank Sweeney, Deputy Chief Walter M. McLean, District Chief Frank Sheeran, District Chief Kelly, and District Chief Lally. Damage was estimated at $60,000.

The apparatus in service was American-LaFrance.

There was a delay in giving the alarm as the janitor of the building who was eating his supper in the basement stopped to assist his wife and family from the building when the fire was discovered before he ran out and pulled in the alarm.

By the time the first apparatus reached the scene flames were leaping from the windows of the two upper floors. The weather was rainy and the wet roofs minimized the danger from flying embers.

Apparatus responding to the four alarms included fifteen engines, five ladder trucks and one water tower.

HARRY BELKNAP.

Church Destroyed in Toronto

Oily rags are believed to be responsible for the fire that destroyed the Erskine United Church in Toronto, Canada.

Both a pedestrian and a policeman noticed an unusual red glow in one of the church windows. They turned in an alarm and about the same time a telephone alarm was received. The call brought two 750-gallon triple combination American-LaFrance pumpers, one American-LaFrance city service truck, one hose car and District Chief Dum.

When the first company arrived they immediately went into the cellar and found the fire in a store room. With the aid of two hose lines, the fire was quickly extinguished.

A terrific roar shook the basement, and the fire that was believed to have been out, broke through the partitions and walls. The entire basement was a glow. A second alarm brought Deputy Chiefs Sinclair and McClain with three 750-gallon American-LaFrance pumpers, one 1,000-gallon Gotfredson pumper, two American-LaFrance ladder trucks, one White hose car, gas supply car and a White emergency car from the gas company. When the second alarm companies arrived, the flames were slowly licking their way up the building and the blaze was coming through the roof.

Sixteen lines of 2½-inch hose were played on the fire but at 7:30 p. m. part of the roof caved in. Chief Sinclair turned in a third alarm as a strong wind carried embers from the fire to nearby property.

The third alarm brought three 750-gallon American-LaFrance pumpers, two White hose cars, one 75-foot American-LaFrance aerial truck and Chief Simpson of the telegraph department. The street railway sent their overhead emergency car. When the third alarm companies arrived, the flame was shooting over a hundred feet into the air. Twenty hose lines were used before the fire was brought under control. Some firemen, together with nearby residents using small hose and extinguishers, wetted down the nearby buildings. Finally after a three hour battle, the men were ordered to pick up their lines. The men prevented the fire from getting into the tower of the church houses close by.

Parked autos and crowds of people hampered the firemen in

Two Views of the Erskine United Church in Toronto, Canada, After the Fire

their work. Police reserves soon had the mob under control and parked cars were removed.

One fireman was injured by a falling slate, and another man who was helping to wet down, fell and broke his arm.

JOHN KARL LEE.

Mersey River Coated With Gasoline

Firemen stationed on both sides of the Mersey river near Liverpool, England, and watchmen assigned to the various ferries to prevent smoking, prevented a fire which might have destroyed the various towns and cities along the river banks.

The American Tanker Seminole went aground on a bank a mile south of Liverpool. The boat had a cargo of 10,000 tons of naptha, gasoline and other highly inflammable liquids. The strong river current broke the ship's back and the oil was carried down the river. The Seminole is a motor ship with a crew of thirty-five men.

For seven miles along both the Liverpool and Cheshire sides, fire brigades were stationed at regular intervals ready for any

emergency. Wreck buoys were set up about the stranded steamer and ships plying up and down the river were advised to give the Seminole a wide berth.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending December 30, 1927

STANLEY, KY.—Store of Edw. Berry and adj. prop. destroyed 40
LEXINGTON, KY.—Cadillac Co.'s bldg. damaged 85
HERBERTSVILLE, N. J.—Barn on est. of Sen. Gable destroyed 25
CLEVELAND, OHIO.—Warehouse of Union Salt Co. destroyed 25
CHESTERFIELD, S. C.—Welsh Bldg. damaged 85
JAMESVILLE, N. Y.—Herrington & Palmer Co., Inc., mill destroyed 40
POTTSVILLE, PA.—Furniture warehouse and adj. property destroyed 135
JACKSON, KY.—Heidelberg Bending Works destroyed 75
ELWOOD, KY.—Kentucky Block Fuel Co. damaged 30
MERCEDES, TEX.—Valley Storage Warehouse damaged 40
KNOXVILLE, TENN.—Knoxville Paper Co. plant damaged 35
HAGERSTOWN, MD.—Stickells' Mills grain storage elevator damaged 25
TORONTO, ONT.—Bldg. occupied by candy firms damaged 45
PENDLETON, IND.—Harris Grain Elevator damaged 35
CENTRAL FALLS, R. I.—Plant of Central Falls Mfg. Co. 40
NEW LONDON, CONN.—Apartment house 40
HOPEWELL, VA.—Grand Central Hotel destroyed 150
OCEAN CITY, N. J.—Hotel Haines destroyed 30
DETROIT, MICH.—Newberry Bldg. destroyed 90
LEWISTON, MONT.—Lehman block damaged 30
E. ST. LOUIS, ILL.—Hog barn in Nat'l Stockyards destroyed 80
INDIANAPOLIS, IND.—Home of C. W. Craig destroyed 50
SAYRE, PA.—Machinery and bldg. of Connoby lumber plant 25
HARRISON, N. J.—School and Church of Our Lady of Chenstowhowa 90
ANACONDA, MONT.—First Baptist Church damaged 25
LANDSDOWNE, PA.—Two-story apartment house destroyed 65
MACON, GA.—Al Sihab Shrine Temple damaged 25
WATKINS COVE, N. Y.—Methodist Church and adjacent property 40
UTICA, N. Y.—South wing, Genesee-Court Apartments 25
SNOHOMISH, WASH.—Mill, Cascade Lumber & Shingle Co. 140
DANVILLE, VA.—Seminole Apartment damaged 25
BIRMINGHAM, ALA.—Bldg. at Birmingham-Southern College 120
HUGO, OKLA.—Several business establishments damaged 80
SANFORD, FLA.—Presbyterian Church destroyed 40
ASHLAND, KY.—Clubhouse of Bellefonte Country Club 65
SHEPHERDSVILLE, KY.—Warehouses of Troutman Bros. 180
BRUNSWICK, GA.—H. C. Gordon and M. Daniels residences 25
WOODBURY, TENN.—S. C. Harris store damaged 25
BROOKLYN, N. Y.—Bldg. of Diamond Burlap Bag Co. 35
PHILADELPHIA, PA.—American Hall bldg. damaged 25
SHELDON, IOWA—Bldg. occupied by Sigman Auto Co. 25
COEUR D'ALENE, IDAHO—Central School Bldg. destroped 40
LAWRENCE, MASS.—Oppenheim Clothing Store, Essex St. 40
ERIE, PA.—Store, Jones Furniture Co. 25
SEATTLE, WASH.—Warehouse damaged 80
GREYBULL, WYO.—Stevens Store damaged 35
DECATUR, ILL.—Krigbraum Elec. Co. and adjoining property 30
CLAKSDALE, MISS.—Barn of C. Clark destroyed 25
LEXINGTON, MISS.—Property of Pahlen Brothers destroyed 25
BUTLER, TENN.—Butler Hotel damaged 25
INDIANA HARBOR, IND.—Three mercantile establishments 40
NEDERLAND, TEX.—Nederland Pharmacy damaged 25
BILOXI, MISS.—Laundry owned by Eugene Dowling 40
NEW YORK, N. Y.—495 Broadway, occupied by Butler Bros. 700

Week Ending January 6

MONTREAL, CAN.—Bldg. occupied by J. Lagarde and others 65
DOUGLAS, WYO.—Temple bldg. in business district 120
HOBOKEN, N. J.—Pier, Clyde Liner Seneca and other vessels 400
FORT WAYNE, IND.—Grand-Leader Dept. Store & adj. property 500
DES MOINES, IOWA—Bldg. of Schooler Motor Co. 25
SPIRIT LAKE, IOWA—Several business establishments 165
CEDAR RAPIDS, IOWA—Bldg. of Hatch & Brookman Lumber Co. 80
PORTLAND, OREG.—Western Bldg. in business section 40
WASHINGTON, D. C.—Residence of Dr. J. T. Johnson 30
FORT GAINES, GA.—School Building 25
CLARKSDALE, MISS.—R. N. McWilliam's residence near here 70
HUGO, OKLA.—Several business houses damaged 160
WASHINGTON, D. C.—Air Corps and Quarter Master's Warehouse 400
JACKSON, KY.—J. Stamper residence and adj. property 25
WIGGINS, MISS.—Bldg. of Stone County Enterprise Co. 25
BEACON, N. Y.—South Avenue School destroyed 200
BRIGHTON, MASS.—Property of New England Rendering Co. 65
NEW CASTLE, PA.—First United Presbyterian Church 30
BIGGER, SASK.—Miller Department Store destroyed 140
JANESVILLE, WIS.—West Side Odd Fellows Bldg. 25
SPOONER, MINN.—Sawmill, of International Lumber Co. 30
LONG BRANCH, N. J.—Several business establishments 30
RHINELANDER, WIS.—Rhinelander Box & Lumber Co. 80
NORWALK, CONN.—Plant of American Hat Co. damaged 25
GREENSBURG, KY.—Graded and High School bldg. 30
DECATUR, MISS.—School building 25
CHICAGO, ILL.—J. H. Kirk Barrel & Cooperage Co. 80
ST. LOUIS, MO.—Bldg. of Aeolian Co. damaged 80
CINCINNATI, OHIO.—Wilson Memorial Presbyterian Church. 25
RUSSELLVILLE, OHIO—Business property destroyed 65
STOCKFORD, ILL.—Peoples Pharmacy, 7th St. 30
KEYPORT, N. J.—Store of Keyport Drygoods Co. 65
HUDSON FALLS, N. Y.—Ginsburg block, Main St. 40
TORONTO, OHIO.—Burke business block destroyed 40
CINCINNATI, OHIO.—Bldg. housing Anchor Paper Co. and others 80
EAU CLAIRE, WIS.—Plant of Ed Phillips & Sons Co. 25
CHARLESTOWN, W. VA.—Plant of Carbide & Carbon Chemicals 400
ONTARIO, CAN.—Dept. Store at 13 North Bay 165
ROCKY FORD, COLO.—Home of H. B. Mendenhall destroyed 25
NEW HAVEN, CONN.—Bldg. of Van Dyck Printing Co., damaged 165
CHARLOTTE, N. C.—Residence of R. R. Dobson 25
SHELBYVILLE, IND.—City Hall destroyed, residences damaged 80
CAMBRIDGE, MASS.—Harvard Law School House destroyed 25
HARRIMAN, TENN.—Stowers Lumber Co. 165
MEMPHIS, TENN.—Country School near here 30
GRANITE CITY, ILL.—Bldg. at 19th & State Sts. 30
PARIS, ILL.—Car barn of Central Illinois Public Service 25
FRANKLIN, IND.—Raridon Furniture Store destroyed 65
COEBURN, VA.—Business block damaged 80
NORTHAMPTON, MASS.—Gazette Bldg. and Harlow block 30
PAWTUCKET, R. I.—Bldg. and several shops destroyed 80

Virginia Firemen to Meet at Ocean View

The forty-second annual convention and tournament of the Virginia State Firemen's Association will be held at Ocean View, a suburb of Norfolk, Va., on Wednesday, Thursday and Friday, August 22 to 24. Ocean View, at one time an independent community, is now within the corporate limits of Norfolk and is about six miles from the business section of the city.

It is a residential and seashore section. Prior to 1926, before the city of Norfolk extended its limits, Ocean View maintained its own volunteer fire department. Fire protection is now furnished by a paid fire department, but a large number of members of the old volunteer corps have formed themselves into a veterans' association, and will handle the convention, according to information received from E. E. Lawler, Jr., Alexandria, former secretary of the Virginia State Association and now a member of the executive committee. The city council of Norfolk and the various civic organizations have also pledged their support. The present secretary of the association is Chief J. B. Gordon, Newport News, Va.

Chicago Patrol Improves Houses

With the opening of the new headquarters of the Chicago Fire Insurance Patrol, Chief Frank C. McAuliffe was so well pleased with the workings of the Automatic apparatus door equipment that he has ordered similar equipment for four more patrol houses. This order includes an outfit for Patrol No. 3, the busiest fire company. During the past five years this company has responded to over 2,700 alarms each year.

Seven of the nine patrols are now equipped with products of the Automatic Power Door Manufacturing Company. Chief McAuliffe expects to have the remaining companies fitted out as soon as plans for such alterations can be approved.

M. E. Krause is special fire department representative of the door equipment concern in the Chicago territory.

Los Angeles, Cal., Orders More Boxes—Since the original order of 260 fire alarm boxes from the Harrington-Seaberg Corporation, Los Angeles, Cal., has placed an order for fifty additional boxes.

Blairsville, Pa., Chief Killed—George A. Kuhn, thirty-five years old, chief of Blairsville, Pa., was thrown from the apparatus while on the way to a fire and died in the Homeopathic Hospital. He sustained a fractured skull and a number of body bruises.

Portland, Ore., to Sell Fire Bonds—Portland, Ore., will sell $224,000 bonds to pay for the construction of three new fireboats and new fire stations in the Lentz, Woodstock and Peninsular sections. The bonds will also pay for the new central fire alarm office.

Flat Pension Rate Planned for Toledo, O.—It is planned to have a flat pension rate of $100 a month in Toledo, Ohio, after a man has served twenty-five years, regardless of his rank. At the present time the firemen receive from sixty dollars a month, and the pension scale is increased the higher the rank.

Chief Mahoney of Peabody, Mass., Injured—Chief William C. Mahoney of Peabody, Mass., was severely burned about the face and hands on December 30 by an explosion of naphtha during a fire that destroyed a building of the A. C. Lawrence Leather Company in Peabody. Six other men were injured in the same explosion.

Ahrens-Fox Apparatus is available

All the advantages inherent to the Fomon Foam Method of fighting fires can now be incorporated with the famous Ahrens-Fox Piston Type Pumpers.

Fomon can be applied in conjunction with the equally famous Ahrens-Fox Booster auxiliary — thereby embodying in one Unit the best features known for coping with fires of every description.

The use of Portable Fomon Foam Equipment is commended and the Ahrens-Fox Company is prepared to supply this form of equipment in the most rational and effective manner.

THE AHRENS-FOX FIRE ENGINE COMPANY

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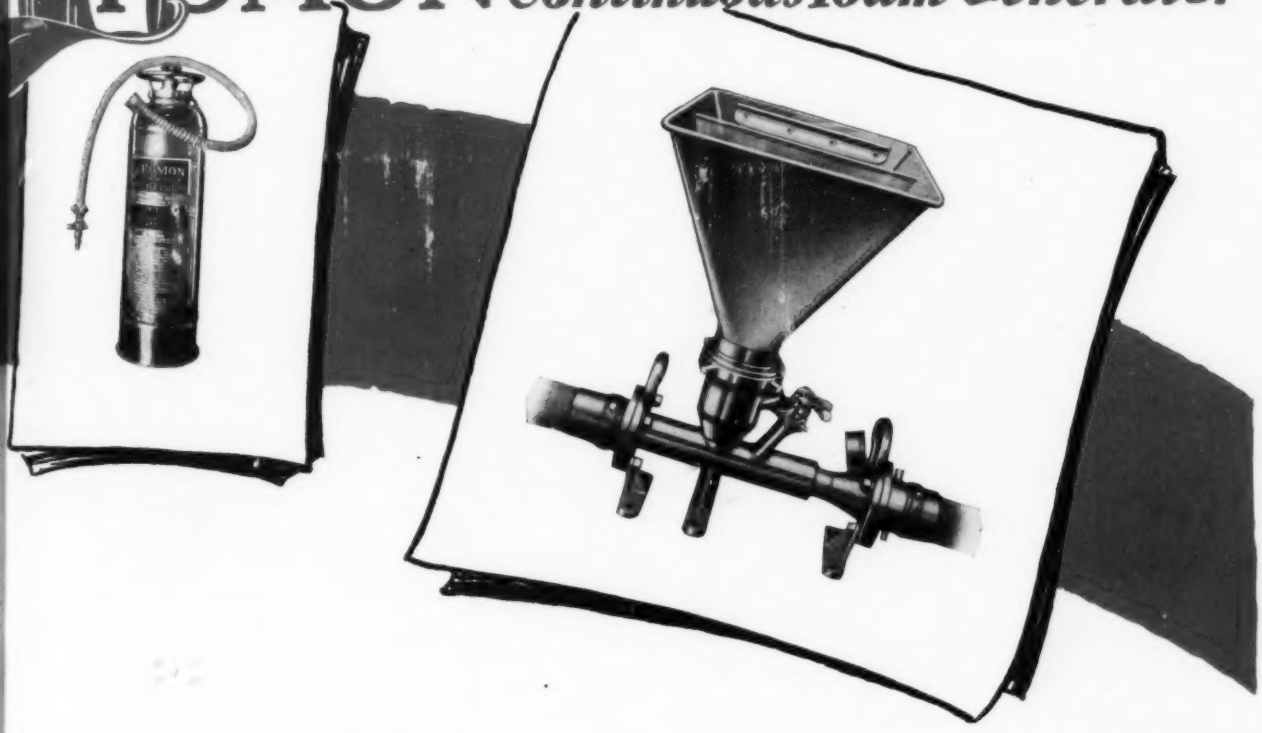
California Representatives, PACIFIC FIRE EXTINGUISHER CO., San Francisco, Cal.
Canadian Representatives, THE BICKLE FIRE ENGINE CO., Woodstock, Ontario
Pacific Northwest Representatives, A. G. LONG CO., Portland, Ore.

FOMON Continuous Foam Generator



The Fire Department Fomon Generator affords the best means of producing foam in portable apparatus on the market today. The large capacity and quality of foam thus produced is the achievement of an organization whose men have been originators and developers in methods of giving the best and most economical form of foam protection. They have the experience of many years of practical work.

Fomon foaming agent is the distinct invention of Fomon engineers. It is an exclusive material manufactured only by the American Fomon Company. It has the approval of the insurance laboratories and the endorsement of a long list of large national companies.

Fomon twin chemicals, designed to prevent any possibility of chemical action or deterioration, offer absolute assurance of 100% foam producing quality. No inert filler material is used.

AMERICAN FOMON COMPANY

"Fomon — Fire Out"

Drexel Building **Philadelphia, Pa.**

CHICAGO—BOSTON—LOS ANGELES—SAN FRANCISCO—DENVER—TULSA—HOUSTON
Representatives in other large cities

SHERRY-NETHERLANDS STANDPIPE TESTED BY NEW YORK DEPARTMENT

Water Delivered to 38th Floor at a Pressure of Seventy Pounds—Rules for Inspection of Work by Firemen—Order for Tests

By WM. JEROME DALY

EFFORTS recently made by Fire Department officials in New York to induce the management of the Sherry-Netherlands skyscraper hotel at 59th street and Fifth avenue to permit a test to be made of its standpipe system by any one of six new American-LaFrance 1,000 gallon pumpers just received and accepted by the New York Fire Department, have been unavailing—the management pleading, "We do not want the big fire of last Spring revived. We want to forget about it, and we want the public to forget."

The desire on the part of the fire authorities to raise water 509 feet through the standpipe system to the uppermost reaches of the tower, was to vindicate the department in the eyes of New Yorkers—the department having been temporarily embarrassed last April when a fire raged atop the hotel tower in the wooden scaffolding used in construction. The fire practically burned itself out because the standpipe system, in violation of law, had not been properly or adequately maintained by the constructors, nor had it evidently been competently inspected by the Department of Buildings, a branch of the Department of Public Works, with which the Fire Department has no connection or control. Hence it was that Fire Chief Kenlon, for the protection of the good name of the New York Fire Department, issued the following order:

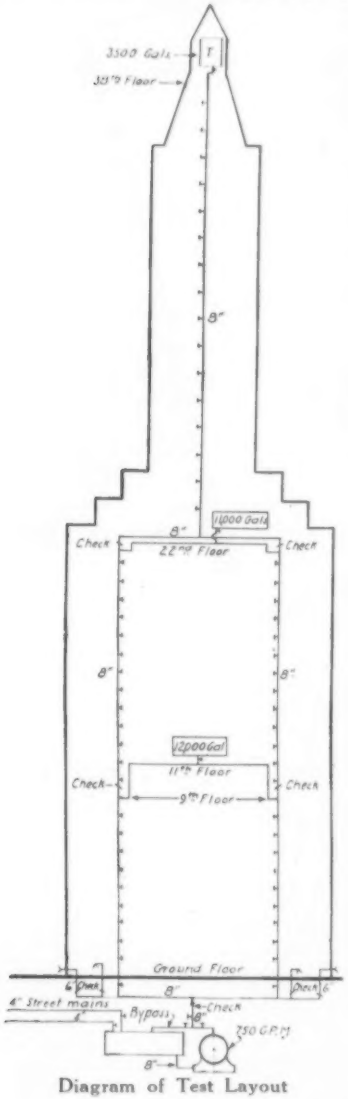


Diagram of Test Layout

"Company commanders shall cause a daily inspection (Sundays and non-working holidays excepted) to be made of standpipe equipments in all buildings in the course of construction.

"Members making such inspections shall give special attention to the following requirements:

"1. Risers must be carried floor by floor with the building after the seventh story (84 feet) has been reached.

"2. All standpipe risers must be properly capped at the top, bottom, and at all cross-connections.

"3. All hose outlets must be provided either with proper hose valves or capped on not more than every second outlet.

"4. An amount of 2½-inch linen hose (with nozzle), sufficient to reach all parts of the floor, must be provided on at least every second outlet.

"5. An approved type of siamese must be provided at street fronts.

"6. All piping must be properly supported.

"7. The interior of all check valves must be clear of obstructions and properly set in the direction of flow from siamese.

"Where standpipe systems are found ineffective for use by this Department the Office of the Chief of Department shall be notified, by telephone, between 3 and 4 o'clock p. m. (10.30 and 11.30 a. m, Saturday). A detailed written report shall follow all telephone reports."

The seven points enumerated in the foregoing order constitute generally the ailment which affected the standpipe lines in the Sherry-Netherlands hotel the night of the big fire and which defeated the efforts of the firemen. Now that the hotel has been finished, and since the law prescribes that the house pump must be capable of delivering at least 50 pounds pressure at the uppermost outlet in the system, the test has been held under the personal direction of Inspector Peter Maher, the Fire Department's expert in that line, who reports that the requirements have been exceeded.

Fire Commissioner Dorman has issued a certificate of approval of the standpipe.

The test showed that with the use of the hotel pump at a pressure of 298 pounds, with 1720 R.P.M., there was produced at the uppermost outlet in the system a pressure of 76 pounds on the 38th floor outlet.

The requirements are 50 pounds minimum. In the basement, there are two 4-inch water supply services from two city mains, feeding into a tank of 5,000 gallons capacity. In the cellar is a four-stage centrifugal pump of 750 gallons per minute, connected to the tank by an 8-inch suction. These two units are also equipped with a by-pass for testing. The standpipe is 8-inch throughout.

On the 12th floor is an intermediate tank of 12,000 gallons capacity; on the 23rd floor another tank of 11,000 gallons and the roof tank in the tower is of 3,500 gallons.

The test is conducted in the following series: 1—Motor test; 2—Pump test through by-pass to observe general conduct of motor, the pump, the bearings, lubrication, etc.; 3—Open the 8-inch gate to the standpipe system; 4—Stretch three 2½-inch lines from the three upper floors to the hatch of the gravity tank in the tower, lash hose to the stairway and set the gauge on the three floors and the gauges on the ⅛-inch nozzles; 5—Set gauges immediately below the uprising check valves, viz., at the 9th and the 20th floors. These show if the uprising checks are functioning.

On the test in the present instance hose line No. 1 from the 38-inch floor standpipe outlet showed 32 pounds at the nozzle which was 35 feet above the standpipe outlet; line No. 2, which ran from next to the top floor, showed 29 pounds on the nozzle at a distance of 46 feet from the standpipe outlet and line No. 3, two floors below the top showed 24 pounds at the nozzle at a distance of 59 feet from the standpipe outlet.

Eastern Fire Alarm Men Meet

The December meeting of the Eastern Association of Superintendents of Fire and Police Telegraph was held in the Hotel Bridgway in Springfield, Mass., on Dec. 14 and 15.

The talks at the meeting were preceded by a short business session held in Springfield fire alarm headquarters. Fire Commissioner William W. Tapley welcomed the visitors. In the afternoon a talk was given by H. L. Bond, field engineer of the National Fire Protection Association. There was also a discussion of the workmen's compensation rules.

At a round table smoker held in the Hotel Bridgway the speakers included Horace Clark, chairman of the Board of Fire Commissioners, Hartford, Conn.; and Supt. Alfred C. Ames, of the Providence, R. I., fire alarm system, who is president of the association.

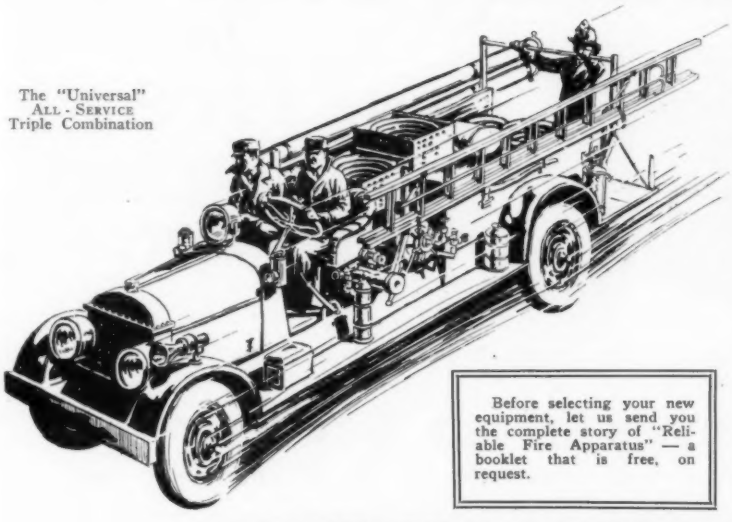
The importance of an ample number of five alarm boxes was stressed by several speakers. The second day's session started at 10 A. M. with a paper on "Fire Alarm Cables," by E. W. Davis, electrical engineer of the Simplex Wire and Cable Company. This was followed by the demonstration of a coding siren by C. S. Cobb, of the Federal Elettrical Company. Another test was that of "Fire-ite," a new kind of dry extinguisher suitable for extinguishing fires in signal and switch boxes. A dinner was held in the hotel with a good attendance.

The next meeting of the association will be held on February 13 and 14 in Providence, R. I.

HARRY BELKNAP.

Many Orders Received by Combination Ladder—The following deliveries of fire apparatus have been made by the Combination Ladder Company of Providence, R. I. Triple combinations were sent to Baltic, Conn.; Charlemont, Mass.; Phenix, R. I.; Redding Ridge, Conn.; Rocky Hill, Conn.; South Glastonbury, Vt.; Whitingham, Vt. Ladder trucks were delivered to Cobleskill, N. Y.; Great Barrington, Mass.; Phenix, R. I.

You Get Unsurpassed Quality



The "Universal" ALL-SERVICE Triple Combination

Before selecting your new equipment, let us send you the complete story of "Reliable Fire Apparatus" — a booklet that is free, on request.

With "Universal" Apparatus — Even to the Smallest Hidden Part

W. S. Nott Company does not merely put quality into things easily seen, but it puts the finest construction into the smallest parts you never see, except in the long life and performance. Nothing is skimped.

"Universal" qualities show up after months of hard service. They stay young with the snap and dash of new apparatus, freedom from repair needs and their long lasting reliability.

Naturally, the wise fire official wants to protect his investment by buying the apparatus that is conceded in engineering circles to be the apparatus of the future.

The "Universal" is powerful, speedy and perfectly balanced, and embodies all that has proven best through many years of experience—real fire-fighting ability, reliability and handsome appearance.

The Universal guarantee covers, ***without time limit***, full replacement without charge of any parts which may prove defective in either material or workmanship.

W. S. NOTT COMPANY

Established 1879

201 N. 3d St., Minneapolis, Minn.

"UNIVERSAL"

MOTOR FIRE APPARATUS

Built on the Unit Renewal Plan

The Burrell All Service GAS MASK

The Standard for the Fire Fighters of America

The Burrell All Service Gas Mask is the only mask approved by the United States Government for complete protection against Carbon Monoxide, Ammonia and every known poisonous gas. Write for Bulletin F-3.

Mine Safety Appliances Co.

Braddock Ave & Thomas Blvd. Pittsburgh, Pa.

Worcester Alarm Signals

A correct size for every town and factory. Steam or air operated. The design of these signals has been tested and approved by many years of service.

The long experience which stands behind this product is always at your service.

Ask for Catalog R-51.

Union Water Meter Co.
Worcester, Mass.

New York Office
50 Church Street

Philadelphia Office
411 Bulletin Bldg.

WORCESTER ALARM SIGNALS

Something New in Fire Fighting Apparatus

For the small fire problem

Indian FIRE PATROL

A new, fast, sturdy unit equipped with the most approved portable equipment, plus a chemical tank of 25 gallon capacity. With it you can cope with grass, chimney, trolley, automobile and all blazes of minor intensity. Save labor and wear and tear on the big apparatus. Let us send you full details.

INDIAN MOTOCYCLE COMPANY
SPRINGFIELD, MASSACHUSETTS, U. S. A.

Clifton Salvage Covers

Are made of strong, heavy duck and lapped seams and are designed of such thickness and weight as to be light enough to be handled quickly and rigid enough for the most strenuous service. They are rubberized on both sides with a double coating of a high grade, long life, rubber compound.

CLIFTON SALVAGE COVERS are built to stand the heaviest abuse and are used by many of the large Protective Departments.

May we send you further particulars?

Clifton Manufacturing Company
Jamaica Plain District :: Boston, Mass.

Saves time - *and costly hose*

No. 1 (Capacity 3 to 7 tons, weight each 72 lbs.)

No. 2 (Capacity 3 to 12 tons, weight each 118 lbs.)

Complete Information of Prices on request

It's often necessary to move apparatus at a fire. Automobile traffic hates to be held up by a line of hose stretched across the right of way.

Why ruin your hose by driving over it? Or waste valuable time cutting off and disconnecting?

The Wausau Protector is a big time and money saver—easy to handle and carry. Order a set today, or write us for particulars.

Wausau Fire Hose Protector Co.
1520 Harmon Place, Minneapolis, Minn.

BI-LATERAL FIRE HOSE

THE BI-LATERAL FIRE HOSE CO.
230 West Randolph St., Chicago, Ill.

The only change made in constructing the rocker lug coupling is

1. That it must be made of the very highest grade metal composition.
2. Adding a little more of the bronze metal to each side of the pin lug so that the couplings will ride without catching.

If this is not an improvement, why?

The Bi-Lateral Fire Hose Co. is using the rocker lug coupling as standard equipment because it is better for the hose and makes a fire department more efficient.

New Victor Gas and Fume Mask

Better Rubber. Longer Life. Better Fitted. Moulded to Fit the Face. Better Vision. Renewable Lenses. Better Air. Better Work. Low Prices. High Quality.

Over 5,000 Victor Gas Masks in Service

Full Line Fire Dept. Supplies and Equipment.

New 43 Edition Catalog on Request

The Woodhouse Mfg. Co., Inc
156 Chambers St., New York

D. A. Woodhouse, Pres. and Gen. Mgr. George J. Kuss, Vice-Pres. and Treas.

WHAT SOME OLD-TIME READERS THINK OF "FIRE ENGINEERING"

Opinions from Chiefs and Others Who Have Read the Paper Over Varying Periods of Years, Mostly Long—Great Improvement Noted

THE following letters just received, incidental to our fiftieth anniversary, are notable, not only for their uniformly commendatory tone, which naturally is very gratifying to the Publishers of FIRE ENGINEERING, but principally for the long period of years during which many of the writers have been subscribers to this journal:

Chief Edward F. Dahill, New Bedford, Mass.:

"I have read *Fire and Water Engineering* and later FIRE ENGINEERING every week for more than twenty-five years. Ever since I was elected Chief of Fire Department in 1904, I have found your magazine a great help. I congratulate you on the occasion of the 50th Anniversary of FIRE ENGINEERING."

George R. Stearns, Fillmore, Calif.:

"Ranking as one of the first subscribers, I congratulate you on the eve of the 50th Anniversary of FIRE ENGINEERING. Each and every issue of the magazine contains much interesting and valuable information, and according to my judgment is improving year after year. I trust the good work will continue and send best wishes."

Chief James Armstrong, Kingston, Ont., Canada:

"Many and sincere congratulations on the fiftieth anniversary of FIRE ENGINEERING of which I have been a regular reader since June, 1908, though for some years previous, I had many opportunities of seeing and reading it occasionally. During all those years I have valued it very highly, have always looked forward to its arrival on my desk, and trust that it may long continue to as in the past. It is one of, if not the most valued, means of spreading the gospel of fire prevention and fire protection throughout the fire service. While making some alterations in my office within the past month it became necessary to move some books and papers, and in doing so, I discovered among them a copy of a souvenir book issued on your 30th anniversary. In looking through it I was reminded forcibly of the flight of time. The book contains many photo cuts of men who were then prominent in the fire service. As I turned over page after page and noted friends who in former years it was my privilege to meet in convention and learn from them lessons which better enabled me to conduct the affairs of the departments which have been committed to my care, and to become, I trust, a more useful member of our sectional and International Associations, the thought came to me: what progress could possibly have been made had we not such a splendid means of carrying the news to each other as FIRE ENGINEERING? The very heartiest of good wishes for your continued success and prosperity."

Ex-Chief Irving I. Patt, Central Falls, R. I.:

"I have been a subscriber to your paper for a long period of times as you know, and I have watched its growth practically from its infancy to its wonderful growth to the present time. Your paper has been the means of bringing to the fire chiefs and firemen of this country as well as abroad the interesting happenings in our field and also the great scientific advances which have been made in the fire service to the world. Many of the interesting articles appearing in your journal have been of great educational value to all of us, and we all know that in order to be up-to-date we must have the benefit of the other fellow's ideas and these have been ably given by you from time to time. The growth of your paper has certainly been remarkable and the success is the result of your painstaking labor. It is my sincere hope that your paper will continue to make the rapid strides in the future as in the past."

Chief F. Dubois, Kenora, Ont., Canada:

"I have been a steady reader of your very valuable edition for exactly a quarter of a century and I hope to be able to continue reading it as long as you have ink to print same, because it's without any doubt the best publication that a person interested in fire department work can wish to have. Therefore please accept my sincere congratulations on this your fiftieth anniversary."

Oceanic Fire Engine Company, No. 1, Long Branch, N. J.:

"We wish to congratulate you on your 50th birthday and wish you many happy years of successful service to the fire field as in the past. It sure is a very instructive paper to the fire fighting forces in all walks of the fire department. It is always up to the minute in all things pertaining to fire fighting work. Again we wish you a long and successful future."

Chief Ben E. Bangerter, Mankato, Minn.:

"Have always looked upon your publication as the leader in its field. Congratulations on your 50th Anniversary."

J. E. Gibson, Manager and Engineer, Water Department, Charleston, S. C., Pres. American Water Works Association:

"I take this opportunity to congratulate you and FIRE ENGINEERING on its 50th Anniversary. I know that your work is being appreciated by those interested in fire protection, and I wish you years of success to come."

Chief Frank D. Scovell, San Bernardino, Cal:

"Your magazine comes to the San Bernardino Fire Department every two weeks, and is followed with interest by members of our four stations. What I like best in your copies are the articles by your own Chief John Kenlon and Battalion Chief A. Reid. Ever since I heard Chief Kenlon speak in Portland I have followed his articles with interest."

Battalion Chief James Crapo, Chicago Fire Department, President, National Firemen's Association:

"Permit me to say that I have been a reader of your journal for a number of years and consider it a paper well suited to the needs of the fire service. I have done my best to encourage the use of your paper, on the part of the firemen and shall continue to do so. Best wishes for your future success!"

Berkeley Rebuilt After Fire

Just four years ago, Berkeley, Cal., experienced a conflagration that destroyed a large part of the city. It started from a grass fire that got out of control. Today the devastated area is entirely reconstructed and there is scarcely a tell tale mark to indicate that fire of such proportions had visited the city.

Since the disaster there have been 33,500 feet of water mains laid in that section. Of this amount 3,300 feet are 12-inch mains and 25,100 are six-inch mains.

The fire department has twelve more men and two major pieces of fire apparatus.

Fire towers on Grizzly Peak and Round Top, where watchmen are stationed night and day to watch for fires during the dry seasons, insure against grass and brush fires getting beyond control and threatening Berkeley. Since the Grizzly Peak tower has been erected 115 hill fires or supposed fires have been reported by the lookout and a squad sent to cope with them.

Two new fire stations have been erected in the area which was swept by flames four years ago this afternoon when $10,000,000 of buildings and contents were destroyed. The LeRoy Avenue Fire Station which was burned when the fire leveled four city blocks of residences, has been replaced by an artistic fire station at 2550 Virginia Street at a cost of $14,787. Here a combination hose-chemical truck, manned by four men in command of Captain William Connors, is stationed. A second fire station has been erected at 1180 Arch Street, costing approximately the same as the Virginia Street station and here are stationed Captain T. A. Andrews and a company of four men.

In the so-called fire area there are now 68 new hydrants and 22 other hydrants have been changed over to larger mains.

Los Angeles Firemen Show Skill at Annual Games

Members of the Los Angeles, Cal., fire and police departments held their annual contests and games in the Coliseum to show their skill. The photograph shows a fireman dropping straight down from a height of one hundred feet into a fire net held by his comrades below. There was a good size crowd to watch the contests.

New residences, apartments, fraternity and sorority houses and other buildings today adorn the district which at 6 o'clock four years ago today lay in smouldering ruins. Undying faith in Berkeley has resulted in citizens building a better Berkeley, an immense area of artistic homes equal to any district in the country. Only here and there is still to be seen reminders of the conflagration. Another year and probably these will disappear.

In the year following the fire $1,887,349 went into rehabilitation of the devastated area. The next year saw $982,375 in new homes. Between September 17, 1925 and 1926, permits for new structures having an estimated cost of $842,521 were issued. This past year close to $500,000 has gone into new buildings in this area.

Leonard Made Chief of Erie, Pa.

With the promotion of Chief Michael J. Cronin to city treasurer of Erie, Pa., Assistant Chief Michael P. Leonard has been promoted to head of the department. Members of the council were unanimous in their selection of Leonard as chief.

Chief Michael P. Leonard

He joined the department on January 1, 1891. Three years later he was made captain of the headquarters company. There he remained until he was advanced to assistant chief in December, 1923.

Chief Leonard is of the old school of firemen who fought blazes single handed. When he was a more youthful fireman, Erie had no full paid department. The captain often times served as driver and pipeman, along with the captaincy. It was not unusual for such an officer to make a hitch, drive to a fire, lay his line and then take it into a burning building before aid came to him.

The retiring chief, Michael J. Cronin, was head of the department since December, 1923 and before that was assistant chief for eight years.

Rules for Radio on Fire Boats

Boston has drafted a very complete set of regulations for the operation of the radio equipment on fire boats. There are three fire boats equipped with radio apparatus and there is also a station at the central fire alarm office.

Under the licenses issued, these stations have only the right to communicate with each other, except in such cases when emergency communication may be carried on with any commercial or amateur station. The communication must be handled in a manner to conform with the rules and regulations of the Department of Commerce and the International Telegraphic Convention. The stations are for official business only.

The transmitters at the four stations are tuned in by order of Department of Commerce, to a wave length of 119 meters. Fire department operators are instructed not to change the tuning of the instruments.

Communications are handled by use of the radio telephone. The operator on the boat receiving the fire alarm shall repeat the message and record it. This record is later signed by the operator, attached to the company's fire report and sent to headquarters. In the fire alarm office, the operator notes on his log sheet the names of the transmitting and receiving operators.

If due to interference, the fire alarm office can not communicate directly, one of the other boats will be called upon to act as a relay point between the office and the boat in service. The operator on the boat relaying the messages records in a journal all of the messages that he handles. A radio operator must be present in quarters or on the boat at all times except when the boat is out of service.

The operator must notify the office as soon as the boat is under way. During watch periods, calls and acknowledgements are made on the hour, at quarter past, half past and quarter of the hour to insure communication.

Radio operators are held responsible for maintaining the batteries in proper working condition.

Chiefs Endorse Two Pending Bills

A joint meeting of the legislative committees of the Fire Chiefs' Club of Massachusetts and of the Massachusetts Police Chiefs' Association was held on December 21 in the office of Chief William H. Hill, of the Belmont Fire Department.

There was a general discussion of two bills pending in the state legislature, one to prohibit the parking of automobiles in the rear of apartment houses and the other to legalize the payment of convention expenses by a city for attendance of heads of municipal departments at such conventions. It was voted unanimously to endorse both of these bills.

Those who attended the meeting were Chief Sewall M. Rich, of Somerville; Chief Selden R. Allen, of Brookline; Chief Patrick J. Hurley, of Holyoke; Chief George L. Johnson, of Waltham; Chief William C. Mahoney, of Peabody; Chief William F. Daley, of Brockton; Chief Ray D. Wells, of Falmouth, and Chief William H. Hill, of Belmont, representing the Fire Chiefs' Club. There was a strong representation of police officials.

HARRY BELKNAP.

Albany, Ga., in Line for 1927 Prize

With fire losses the lowest in its history and far lower than the years that it was awarded the prize by the United States Chamber of Commerce, Albany, Ga., it is believed, is likely to win the award for 1927. D. W. Brosnan is chief of the department and is also a director of the International Association of Fire Chiefs.

Chief D. W. Brosnan

The honors that have come to Albany, Ga., are as follows:

1924—Class A award for the best record in fire prevention and fire control in all cities in the country under 20,000 population.

1925 — Grand award for the best record of any city in the United States regardless of size.

1926 — Grand award for the best record of any city in the United States regardless of size.

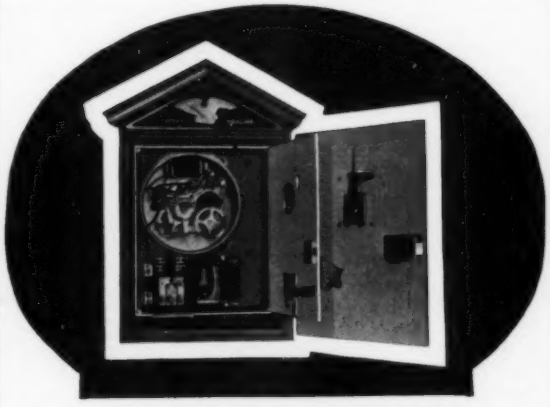
Chief Brosnan and his men confidentially believe that they will be awarded the prize for 1927 because of the unusually low fire losses. He stated that his rule for success in fire prevention is to make the whole town a fire prevention department. Make every man, woman and child in Albany, Ga., on the alert to prevent fires. The value of fire prevention is taught to the children in school. The city buys advertising space in local newspapers to call attention to the value of fire prevention.

Albany covers six and one-half miles within the city limits and half as much more in the suburbs. The department consists of seventeen men and the chief. The men as well as the chief sleep at the fire stations. They devote all their time to fire prevention work.

W. G. SUTLIVE.

Toledo, O., to Issue Fire Bonds—Toledo, Ohio, will issue $10,000 bonds for the purchase of fire apparatus and equipment.

Boise, Ida., Receives New Pumper—A new 500-gallon pumper has been delivered to Boise, Ida. It is planned to install a chemical tank on the pumper.



ALUMINUM BOXES

can't rust or corrode; sturdy; light weight. H-S sixteen round, succession, non-interfering type, precision operating fire alarm boxes have the confidence of the country's largest municipalities. Designed, built and installed by specialists. Write for descriptive bulletins.

HARRINGTON-SEABERG CORPORATION
DEPT. G, MOLINE, ILLINOIS
Manufacturers

The only manufacturers filling all the signal requirements of the modern municipality. Fire Alarm, Police and Traffic Signal Equipment.

Chief D.W. Brosnan

"Shuredry" Waterproofed SALVAGE COVERS

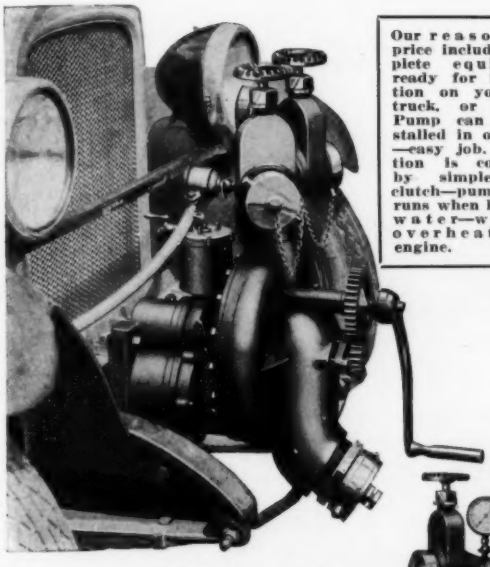
See what Chief Brosnan, of the Albany Fire Department has to say about Shuredry for salvage work.

"We have used SHUREDRY covers in all our salvage work for a number of years; we have found them durable and they give absolute satisfaction. They are light and easy to handle which makes for speed, and speed means everything in salvage work."

"We carry six standard size covers on each piece of apparatus and through their use we have saved thousands of dollars of water damage that otherwise could not have been avoided. I have no hesitancy in recommending them."

Write for Shuredry samples and prices.

FULTON BAG & COTTON MILLS
Atlanta Dallas Brooklyn St Louis
Minneapolis New Orleans



Our reasonable price includes complete equipment ready for installation on your car, truck, or tractor. Pump can be installed in one hour—easy job. Operation is controlled by simple hand clutch—pump only runs when handling water—will not overheat your engine.

Now We Offer Adequate Protection for the Smaller Communities

Front view showing accurate pressure gauge.

FOR the village, smaller town or suburban district, where no water system exists, the new Barton Fire Pump is just the right equipment to combat the hazard of fire.

The Barton can be mounted on the front of practically any car, truck or tractor, and is operated by the automobile engine through a patented power take-off of unfailing design.

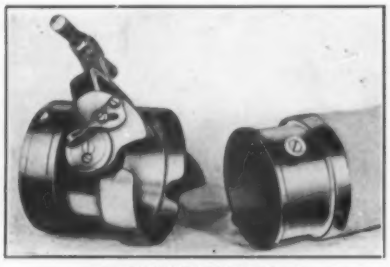
It delivers two large capacity streams at pressures to 200 pounds and is automatically primed. Handles water from any available source — pond, stream, cistern or muddy slough—regardless of sand, mud or cinders. In short, here is the best fire pump ever developed for smaller community application —*at a price you can afford.*

Write today for our Bulletin giving complete details, capacities, pressures, etc., and showing interesting photos of the Barton in action. It will pay you to investigate *now*.

AMERICAN STEAM PUMP COMPANY
BATTLE CREEK, MICHIGAN
Sales Offices in the Principal Cities

BARTON New FIRE PUMP

SPEEDY SCIENTIFIC!



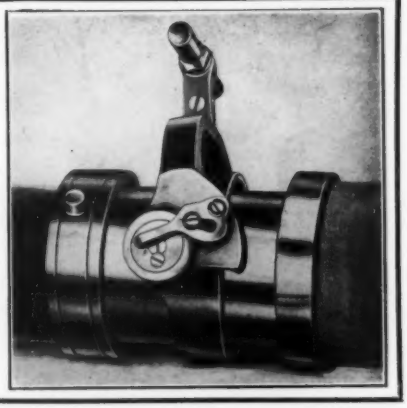
ECONOMICAL EFFICIENT!

This shift-connecting and disconnecting threadless coupling guarantees a speedy getaway when falling walls or uncontrolled fire threaten the safety of men and apparatus. Push the handle for a positive, leak-proof connection—Pull it and it disconnects instantly. This National Threadless Coupling eliminates all threading and misthreading—Solves all hard suction problems—Cannot Leak, Freeze or Jam — No wrenches—No Gasket Wear—Sturdy bronze construction—Built to outlast the apparatus—Easily installed on any pumper. Backed by five years of gruelling service. Write for descriptive literature.

Threadless Couplings for Fire Engines, Oil Tanks and Trucks, Oilhose, etc.

National Standard Threadless Coupling Corp.

Executive Office: 215-217 Beach 122nd Street, Rockaway Park, N. Y.



City Service Hook and Ladder Apparatus

COMBINATION LADDER CO., INC.
381 FOUNTAIN STREET, PROVIDENCE, R. I.

HAHN

Motor Fire Apparatus

Write for literature and prices on our 250, 350, 500 and 750-gallon triple combinations, chemical and hose combinations and city service trucks.

Hahn Motor Truck Corp.,
Allentown, Pa.

HALE PUMPS

LONGER effective life, higher efficiency and greater freedom from trouble may be had by using Hale Dreadnaught Fire Pumps.

HALE FIRE PUMP CO.
Conshohocken, Pa.

6 Patented Features

ERICK SIREN

Thorough Weather Protection
Erick Sirens do not clog up. Snow and ice cannot enter and stop sounding rotor. Completely protected and sheltered from outside influences.

Features That Prove Supremacy

Instant Alarm
Every telephone is a fire alarm station, permitting operator to sound alarm instantly, giving your fire department a chance to get the jump on the fire.

Universal Sound Projector
The Erick Sound Rotor and Deflector is built to instantly send a Fire Alarm.

Our Free Trial offer is made in all sincerity. We welcome your inquiry.

ERICK ELECTRIC SIREN CO.
STATE AND FILLMORE AVE., ST. PAUL, MINN.

When in the Market for New Equipment

please write us and we shall be glad to have the right manufacturers provide you with complete specifications and prices for your consideration. This service won't cost a cent nor place you under any obligation whatever. We just want to cooperate both with you and with manufacturers in every possible way.

FIRE ENGINEERING
225 W. 34th St., N. Y. C.

FIRE DEPARTMENT ACTIVITIES

Chief Healy of Denver to Get New Car—Chief John F. Healy of Denver, Col., will soon be riding to fires in a new auto.

Nekoosa, Wis., Receives Pumper—Nekoosa, Wis., has received a Seagrave pumper equipped with chemical tanks.

Auburn, Me., Receives New Apparatus—Ahrens-Fox fire apparatus has been delivered to Auburn, Me.

Kilbourn, Wis., Purchases Fire Apparatus—A Pirsch special equipped with a booster tank has been purchased by Kilbourn, Wis.

Pumper Delivered to Chicopee, Mass.—A triple combination pumper has been delivered to the new Aldenville fire station in Chicopee, Mass.

Waucheta, Ia., Purchases Pumper—Waucheta, Ia., has purchased a Nott 500-gallon pumper equipped with a 100-gallon booster pump.

Chief Michael J. Corrigan of Chicago, Dined—A testimonial dinner was arranged at the Edgewater Beach hotel to honor Michael J. Corrigan, new fire chief of Chicago.

Brillon, Wis., Purchases Apparatus—Brillon, Wis., has purchased fire apparatus—the town paying one-half of the purchase price and the balance is contributed by the farmers.

Pt. Place, O., Opens New Station—The public were invited to inspect the new fire station constructed in Point Place, Ohio, by members of the volunteer fire department.

Harrisville, R. I., Buys Pumper—Harrisville, R. I., has purchased a new pumper for $6,500. The apparatus has a capacity of 500 g.p.m.

Milford, Conn., Discusses Site for New Station—The Fire Board of Milford, Conn., is considering a site for the erection of a central fire and police station.

Rock Island Firemen Have New Fire Helmets—New fire helmets were passed out to the firemen of Rock Island, Ia., by Chief August Schmidt.

Decatur, Mich., to Purchase Fire Apparatus—A 500-gallon pumper has been purchased for the protection of Decatur, Mich., and the neighboring farm sections.

Portland, Ore., Has New Squad Car—A new squad car designed by Chief Lee Holden has been placed in service in Portland, Ore. The machine has been constructed from parts in the fire department.

Boston Fire Department Busy Xmas—During the two day Christmas holiday, members of the Boston department answered fifty bell alarms and a large number of still alarms. The total damage, however, did not exceed $40,000.

Paterson, N. J., to Have New Fire Station—Ground has been broken for the erection of a double fire station in the People's Park section of Paterson, N. J. The total cost of the station is estimated at $50,000.

Bellingham, Wash., Plans to Improve Fire Alarm—Bellingham, Wash., is planning to place all of the fire alarm telegraph wires underground. The cost of this improvement is estimated at over $20,000.

Centralia, Wash., Honors Retiring Chief—A farewell party was held in the city hall to honor Fred Wilcox, Chief of Centralia, Wash., who plans to retire after holding his present post for six years.

Blassburg, N. Y., Orders Buffalo Apparatus—Blassburg, N. Y., has ordered standard Buffalo fire apparatus. The American Legion post was active in raising funds with which to finance the purchase.

Providence, R. I., Against New Station—The Zoning Board of Providence, R. I., has refused to permit the erection of a fire station on a certain street on the grounds that it would jeopardize the safety of children to and from school.

Cobleskill, Pa., Receives Apparatus—Cobleskill, Pa., has received a Combination Ladder Company apparatus equipped with a booster tank, hose and ladders. The apparatus is mounted on a Reo chassis.

Roscoe, Wis., Considers Fire Protection—By means of a measure just passed the state legislature, it is possible for Roscoe, Wis., to form a fire district. It is necessary to have fifty signatures to a petition before the legal machinery for the improvement is set in motion.

Chief Brookins of Norwich Re-Appointed—L. C. Brookins who was chief of the fire department in Norwich, Conn., for the past fifteen years was again recommended for that office. Warren E. Eaton was chosen first assistant chief and Carl Gibson, second assistant chief.

Birmingham Awards Fire Station Contract—Contracts have been awarded for the construction of the Central Park fire station. Plans call for a one-story English cottage type building to house one fire truck and six men. Drying racks will be installed in the station.

Entire Fire Company to be Pensioned—As the result of the squabble that developed following a garage fire, an entire fire company in McKeesport, Pa., has been asked to make formal application for retirement commencing January 1. Three men are affected by this council suggestion.

Three Boston Men Injured on Way to Fire—Three members of Protective Company No. 3, Boston, Mass., were injured when the apparatus on which they were going to a fire, skidded and overturned while trying to avoid a crash with another vehicle in Roxbury.

Chief Herring Resigns from Charity Work—Chief Albert Herring, of Murphysboro, Ill., has resigned as chairman of the winter charity board in his town. Chief Herring has been active in this work for years but he has been advised by his physician to rest up from his outside work.

Wants Chief Platt of Decatur to Resign—One of the commissioners of Decatur, Ill., seventy-three years old, wants Chief Ed Platt, seventy, to resign, on the grounds that the chief is too old. It is understood that this is the outcome of a grudge that developed because of differences of opinion.

Dickson City, Pa., Chief Escapes Injury—Assistant Chief William J. Griffiths of Dickson City narrowly escaped death when a chemical tank that he was placing on the apparatus, exploded. The cap grazed his face, cutting it and became imbedded in the ceiling. Acid from the tank was sprayed on his eyes, but the injury was not serious.

Houston, Tex., to Reorganize Department—Houston, Tex., has annexed the areas of Harrisburg, River Oaks and Memorial Park. Following a tour of inspection to the fire stations in the annexed areas, a reorganization of the Houston department was deemed necessary as many of the houses in the new territory were inadequate and located too far apart. It is possible that another fire station will be erected.

Firemen Are Equal to Policeman!—Officials in Sheridan, Wyo., have at last discovered that a fireman is worth as much to the city as a policeman. An ordinance has been drafted to lower the policemen's pay from $1,620 to $1,560 a year and to increase the salary of firemen from $1,500 to $1,560. No additional funds will be needed. Sixty dollars will be taken from the policemen and given to the firemen.

Ship Destroyed in South Seas—A motor ship, without radio equipment, caught on fire from a gasoline can capsizing in the engine room, while the boat was in the South Seas. A passing boat saw the reflection of the blazing ship in the dead of the night while thirty-five miles away. By the time the rescuers arrived, the men had taken to life boats. One man was fatally burned but the others of the crew were saved.

Citrus Belt Firemen Tendered Dinner—Members of the Riverside, Cal., Firemen's Auxiliary served a dinner to nearly three hundred members of the Citrus Belt Firemen's Association. Among those who spoke at the dinner were Chief Fred Coop of Pasadena, Frank J. Agnell of the National Board of Fire Underwriters, Mark Ryan, president of the Pacific Coast Fire Chief's Association and Jay Stevens, fire marshal of California. Many city officials attended.

Watchman Responsible for Large "Tad" Fire—Failure of a watchman to remember the location of a fire alarm box, caused a large fire loss in the yard buildings of the T. A. D. Jones Coal Company in New Haven, Conn., owned by "Tad" Jones, the famous Yale University football coach. When the fire was discovered a watchman ran a mile to turn in the alarm although there was a box within two hundred yards in either direction. A barge was partly destroyed but coal on the barge was saved as well as the material in the yards.

PROPOSED IMPROVEMENTS

Miami, Dade Co., Fla.—A fireboat is needed in this city. Plans are being discussed for this purchase, according to reports.

Riverdale, Prince Georges Co., Md.—Members of the fire department of the City of East Riverdale are raising funds for the erection of a new fire station, according to reports.

Boston, Mass.—Preliminary steps toward a new fire station in Melrose Highlands were taken when the aldermen voted an appropriation of $5,000 for the site at Melrose and Tremont streets.

Benton Harbor, Berrien Co., Mich.—Chief William Berk recommended to City Council the purchase of a 1,000 gallon pumper for the fire department.

Terra Alta, Preston Co., W. Va.—Plans are being made for the purchase of new fire apparatus for the local department, according to reports.

Gold Beach, Curry Co., Ore.—Funds being raised by the Exchange Club for the purchase of a chemical car and the organization of a volunteer fire department. F. J. Huntley, member of committee.

Bridgeport, Fairfield Co., Conn.—Plans are being made for the erection of a new central fire station to be located on West River Street, according to reports.

Lynn, Essex Co., Mass.—Reports state Chief Chase is in favor of the city purchasing a water tower in connection with the aerial trucks and water guns.

Babylon, Suffolk Co., N. Y.—A movement is under way to secure a new piece of apparatus for the Babylon Hook and Ladder Co.

Hamden, New Haven Co., Conn.—Board of Fire Commissioners recently purchased a Maxim 750 gal. pumper for the fire department, at $12,500.

Sea Isle, Cape May Co., N. J.—The fire equipment recently destroyed is to be replaced.

Williamsburg, Blair Co., Pa.—At recent election city defeated a bond issue for the construction of a fire station. C. R. Flicke, Borough Secretary.

Potosi, Grant Co., Wis.—At a recent special election the township of Potosi voted to join the village in purchase of fire equipment.

Walton, Delaware Co., N. Y.—A petition is being circulated asking the Walton village board to call an election to vote on a $7,000 bond issue for the purchase of a triple combination car.

Chardon, Goauga Co., Ohio.—A new volunteer fire department is being organized here.

Newport Plans Fire Improvements

Extensive fire department improvements and the construction of a new fire station are being considered in Newport, R. I.

George Ernest Robinson

A report on the fire conditions in the city was made by George Ernest Robinson, Boston, Mass., noted architect specializing in the construction of fire stations. The following are extracts taken from his report:

"Newport presents a real problem in fire protection and that no conflagration has taken place is a credit to your fire department. Rarely does a city of thirty thousand population offer such a difficult problem as does your municipality.

"Newport has many wooden structures. They are near together and have contents of an inflammable nature. There is an area of several miles to be covered; but in these days of motor apparatus and well kept roads this does not offer as serious a problem as in the days of horse drawn vehicles.

"Many cities and towns are awake to the necessity of modern fire alarm protection and have installed or are planning to install their fire alarm systems in fireproof structures. The cities of Providence and Boston have recently built buildings that are as nearly fireproof as human skill and available materials can make them. Your fire alarm system is now housed in the Marlboro Street house which is a wooden building in danger not only of fire but also structurally dangerous in part at the present time. One cut of a sharp knife could put your entire alarm system out of commission.

"The present fire stations are five in number, and I believe in this age of motor apparatus the number of such stations can be reduced to two modern stations, thus reducing the cost of overhead and providing for better supervision of men and apparatus and also turning back taxable property which would ultimately pay for the cost of improvements.

"I have suggested that two new stations could take the place of five. I have suggested locating a new fire station so it will face upon a broad street in order to permit of a quick get-away. I would strongly recommend a lot of at least 125 ft. frontage on Broadway. A second fire station could be erected at some future time in the vicinity of Narragansett Avenue, doing away with the Coggeshall and Young Street Stations.

"The tower of the Marlboro Street Station is of brick and might be used for a drill tower with some slight alterations and the station, after repairs and alterations, could be used for a workshop. The other stations might be disposed of.

"I have planned an up-to-date fireproof building for your fire alarm equipment entirely separate in physical connection yet attached to a modern fire-proof station. The fire alarm station must be separate from the fire department headquarters and contain the regular units for a 12-circuit layout at least and that can eventually be made a 20-circuit layout.

"The building for fire department headquarters, you will note from the plans submitted, has a first floor without posts since I consider that posts on the first floor of a modern fire station are antiquated and interfere with the free movement of apparatus. The building must house at least three motor pumping engines, one hook and ladder truck, and a chief's car. The building planned has room for at least three future pieces of apparatus besides those now required. The house can accommodate 5 officers and 30 men.

"Fire department houses can be built, apparatus and hose bought; but real firemen are born and then developed by proper instructions. The morale of the department must be kept at a high standard and it is important as an aid to perfect working machinery. Nothing contributes more to the dissatisfaction of firemen than living in quarters that are ill ventilated, without the comforts of living conditions and advantages such as even ordinary homes provide. Your department gives evidence of being well instructed in the handling of fires, familiar with the laws, and well trained. Notwithstanding this the personnel of your department shows dissatisfaction due, in my opinion, to present living conditions. I have known like conditions in other municipalities where discontented men have in their hours of leisure become jolly, buoyant, happy, and carefree because their new building and its equipment gave comfort, opportunity to enjoy music, games, entertainments, and visits of relatives and friends the same as one would in his own home. Not all the time of firemen on duty is employed in keeping house, apparatus, and equipment clean and neither is there sufficient fire duty or inspection work to take up all their time. The pay of firemen is not large, therefore the best that we can do for them is to give them comfortable quarters and reasonable recreation facilities."

Accompanying Mr. Robinson's report were plans, drawings, and details of construction for the proposed new station and alarm headquarters.

HARRY BELKNAP.

CONVENTION DATES

May 7-10—NATIONAL FIRE PROTECTION ASSOCIATION (International). 32nd Annual Meeting, Atlantic City, N. J. Secretary, Franklin H. Wentworth, 40 Central Street, Boston, Mass.

May 10-11—ARIZONA STATE FIREMEN'S ASSOCIATION. 5th Annual Convention, Bisbee, Ariz. Secretary, Chief W. J. Nemeck, Douglas, Ariz.

June—WISCONSIN STATE FIREMEN'S ASSOCIATION. 41st Annual Convention and Tournament, (tentative date) about middle of June, at Kiel, Wis. Recording secretary, E. Philip Mueller, Jefferson, Wis.

June—OKLAHOMA STATE FIREMEN'S ASSOCIATION. 34th Annual Convention and State Firemen's Training School (tentative date), Blackwell, Okla. (Exact date to be fixed by Executive Board.) Secretary, Charles Slemp, 651 East 12th St., Oklahoma City.

June 5-7—KENTUCKY STATE FIRE CHIEFS' AND FIREMEN'S ASSOCIATION. 10th Annual Convention, Middlesboro, Ky. Secretary, Captain S. G. Render, Fire Department Instructor, 303 Speed Building, Louisville, Ky.

June 16—LEBANON COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Palmyra, Pa. Secretary, William I. Kutz, Box 233, Myerstown, Pa.

June 19-21—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 39th Annual Convention, Kingston, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y., Fire Department.

June 26-29—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 6th Annual Convention, Burlington, Vt. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass.

Aug. 22-24—VIRGINIA STATE FIREMEN'S ASSOCIATION. 42nd Annual Convention, Ocean View, Va. Secretary, Chief J. B. Gordon, Newport News, Va.

Sept. 18-19—IOWA FIREMEN'S ASSOCIATION. 51st Annual Convention, Independence, Ia. Secretary, E. E. Parsons, Marion, La.

Oct. 22-24—KANSAS STATE FIRE CHIEFS and FIREMEN'S ASSOCIATIONS and WOMEN'S AUXILIARY. 13th and 42nd Annual Conventions and 3d Meeting, respectively, Liberal, Kan. Secretary, Chief K. D. Doyle, Wamego, Kan.

Property Protection Services *are Efficient*

in proportion to the *supervision* and *maintenance* they receive.

ADT Fire Protection Services provide constant supervision and proper maintenance of the systems installed. The ADT organization assumes the full responsibility for their efficient operation.

Write for more information.

PROTECTION A.D.T. SERVICES

Controlled Companies

American District Telegraph Co.

183 Varick Street, New York, N. Y.

STEEL DOORS for FIRE STATIONS

Dependable steel doors. Will not stick or warp. Solidly built. Reinforced corners. In sizes to meet all requirements.

Write for prices and literature

TRUSCON STEEL COMPANY
Youngstown, Ohio

TRUSCON

SOUTHWORTH
Quality Fire Apparatus

300 to 750 Gal. Triple Combination Pumpers.

City Service Ladder Trucks, Combination and Chemical Cars.

Recent Sales
Harrison, Maine
300 Gallon Pump

Waterville, Maine
One Tank Combination

Charlestown, N. H.
500 Gallon Pump

SOUTHWORTH MACHINE CO.
Fire Apparatus Division
52 Sagamore Ave., Chelsea, Mass.
Factory: Portland, Maine *Tel. Chelsea-2105*

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Waterous

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Agents in Principal Cities

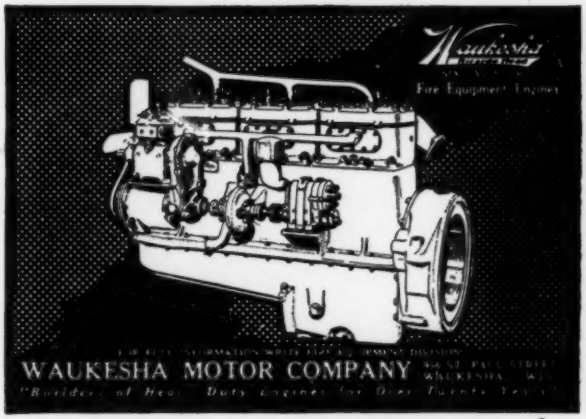
WATEROUS COMPANY
St. Paul, Minnesota

COREY

Hydrants as manufactured by "Rensselaer" are being used to fight fire in every State of the Union. Made of the very best material and workmanship.

"The Rolls-Royce among Fire Hydrants"

RENSSELAER VALVE CO.,
TROY, N. Y.



ASBESTOS SHINGLES PREVENT POSSIBLE CONFLAGRATIONS

Prevented More Serious Damage in Ocean City, N. J.—Stopped a Fire That Destroyed a Hotel and Another That Razed a Garage

ASBESTOS shingles have demonstrated their value as a means for stopping the spread of fire at the recent conflagration in Ocean City, N. J. A large number of frame buildings were destroyed at that time.

In one case, the rear of the Boardwalk stores were covered with asbestos shingles. These structures stopped the progress of the flames from the south. The fire that burned a number of frame store buildings south of the pier, was checked by three one-story buildings that were covered with asbestos shingles.

Another example was a frame bathing pavillion on the boardwalk. This was in the center of a very hot section. Wood posts and the ceiling were on fire a number of times but the fireproof roof was not damaged and this helped the firemen to save the pavillion.

A garage caught on fire. On the side of the garage was a frame office building that was covered with asbestos shingles. Not only did this save the building but it served as a fire barrier for the six double frame houses on the same street.

Perhaps the most conclusive proof of the value of this type shingle is the fire that destroyed the Normandie Hotel. Adjacent to the hotel was a house that was being covered with asbestos shingles. The hotel was destroyed but the house protected by asbestos shingles remained standing. Only the porch posts, cornice and some exposed woodwork caught on fire, but the flame was soon extinguished before any serious damage was done. The asbestos covering on the roof and walls prevented the fire from reaching a number of houses nearby.

Ocean City has adopted an ordinance that makes it obligatory to cover all inflammable types of roofs with a fireproof type of roofing approved by the fire underwriters. This is to be done before January 1, 1930. The legislation was largely influenced by the good work accomplished by the asbestos covering.

But while the conflagration has proven the value of asbestos as a fire retardant, it has also demonstrated that asphalt roofing and shingles are not capable of withstanding intense heat. One house so covered, was several hundred feet from a burning building. The heat, even at that distance, melted the asphalt and the substance ran down from the sloping roof like water.

Showing the Value of Asbestos Covering as Fire Breaks

Upper—Ruins of Hotel Normandie. The Asbestos covered dwelling in the background prevented the spread of fire to dwellings beyond. Lower—An asbestos covered garage office saved the six two-story dwellings on the same street in Ocean City.

How Flying Fire Brands May Spread the Fire Zone

Small fires started by flying embers in Ocean City, N. J., falling on wooden shingle roofs. In this instance, the fire was extinguished before any serious damage was done.

Officials of Ocean City now know that asbestos covered roofs and walls are invaluable as a means of stopping a conflagration.

Pyrene Develops New Foam System

In line with the many developments in the foam field of fire protection, the announcement of a test to be held of the Phomene Accumulator System, will be of interest to those interested in the protection of flammable liquids.

The test will be held on Thursday, January 19, at 560 Belmont Ave., Newark, N. J., principally for representatives of the Underwriters' Laboratories, Factory Mutual Insurance Associations, fire protection engineers and government department men. There will be a luncheon at on o'clock, preceding the test.

The Globe Automatic Sprinkler Company of Philadelphia and the Pyrene Manufacturing Company of Newark, N. J., are co-developers in the new foam system. It is said that the device is one hundred per cent automatic, even shutting off the flow of water into the device when the powder content has been expelled.

A large oil fire will be started to show the merits of the Phomene Accumulator System of fire protection.

Fire Losses in New York City Reduced

(*Continued from page* 14)

giving added fire alarm protection to the Jamaica Bay communities. Important changes and improvements in fire alarm equipment were also effected in the Bronx and along the Victory Boulevard in Staten Island which will soon result in a reduction of the fire insurance rates of the areas improved.

During the year there were 384 firemen appointed, 221 members of the uniformed force voluntarily retired after twenty years service, five resigned, two were dismissed, two were resinstated, thirty-seven died of which number thirteen were killed in the discharge of duty; and twenty retirements for physical disability were ordered by the Board of Medical Officers.

There were 112 promotions in the service; one deputy chief, three battalion chiefs, forty captains and sixty-eight lieutenants.

E. Cleveland, O., Firemen Get Pay Increase—Firemen in East Cleveland, Ohio, were granted a pay increase.

North Wales, Pa., to Purchase Pumper—North Wales, Pa., will purchase a pumper through a special tax of three mills to be levied by the borough.

Clinton, Ia., Chief to Have New Car—A Buick touring car has been ordered by the council of Clinton, Ia., for Chief Albert Krenz to replace the car now in operation.

Salem, Ore., Opens Bids for Pumpers—Bids were opened in Salem, Ore., for a new pumper. The Mack company was low bidders.

Thirteen Men Promoted in Chicago—Commissioner A. W. Goodrich of Chicago has announced thirteen temporary promotions. The list includes one battalion chief, six captains and six lieutenants. In addition, twelve captains, ten lieutenants and fifty-five firemen were transferred by Fire Marshal Michael J. Corrigan.

RED ARROW SIREN

Siren with Storm Hood

1. Double-tone, and of greatest carrying power.
2. Ball bearings throughout.
3. Accurately machined and balanced.

30 Days' Free Trial

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DECOT MACHINE WORKS
Sauk City, Wis.

Novo Acid Jars & Holders

of every description, stronger than lead and non-corrosive. Used by departments throughout the country.

Chemical Tanks and Lally Quick Opening and Self-packing Top for Chemical Tanks

Lally Improved Fire Hose Couplings, Fire Extinguishers and Charges, Fire Hose and Fire Department Supplies in General

Send for Complete Catalog

LALLY FIRE APPLIANCE CO.

Wilmington Brass Co., Wilmington, Del.

MORSE

FIRE BOAT EQUIPMENT

Invincible and Callahan Nozzles

Fire Department Supplies

are in use throughout the country and giving unsurpassed service.

Every fire official should be fully acquainted with Morse equipment and have our catalog and other descriptive literature on file for ready reference whenever considering the purchase of new equipment.

You will find that it pays.

Write for Catalog

Andrew J. Morse & Son, Inc.

221 High St. Established 1837 Boston, Mass.

MAXIM FIRE APPARATUS

If your apparatus is Maxim-built it will prove dependable and reliable at all times.

Complete information upon request.

MAXIM MOTOR COMPANY, Middleboro, Mass.

Metropolitan Sales Agents:

The Woodhouse Manufacturing Co., 156 Chambers St., N. Y.

YESSIR! EF WE'D A HAD A LADDER, THET FIRE WOULDNT A GOT OUTA THET THERE CHIMNEY! SHUCKS! YOU CANT DO NOTHIN 'THOUT 'QUIPMENT!
YEP! DURN SMUDGE DIDNT AMOUNT TO NOTHIN' AT FIRST! 'S TOO BAD!

"It Sure is Tough Lines when a Chimney Fire Gets Away from You and You Lose the Whole Works!"

But—

Whether you are the head of the Punkinville or Chicago Fire Department, TAKE A TIP! A 50c package of KILSOOT is the only Equipment you need to fight the ordinary chimney fire.

KilSoot — The Real American Chimney Fire Extinguisher

NO LADDERS! NO SALT! NO SCUTTLE OF COAL POURED DOWN THE FLUE!

And, By the Way, If You Are a Volunteer Fire Chief—

Perhaps your Company is trying to raise funds for new Apparatus or equipment. Why not drop us a line and get our selling proposition.

A package or more of KILSOOT in every home and business place in your community and a supply in every FARM HOUSE should be your object.

Kilsoot Chemical Company, Inc.,
1834 Broadway,
New York, N. Y.
Gentlemen:

Please send us at once eight dozen household size packages of KilSoot, as we have only three packages of the last five dozen left. It certainly goes "like hot cakes."

We had a chimney fire last night in one of our leading stores and one package of KilSoot did the work.

Now, we have so much faith in KilSoot, that we did not even ring the alarm, but picked up some KilSoot and left for the scene of the fire. In a few minutes all was over as one package did the work.

Very truly yours,
UNION BRIDGE FIRE COMPANY,
Geo. C. Eichelberger, Fin. Secy.

Net Yourself a Profit and Do Your Neighbor a Good Turn. Tell Him About the Most Effective Fire Preventative Known.

KilSoot

TRADE MARK REG.

Kilsoot Chemical Company,
1834 Broadway, New York, N. Y.
(Make Kilsoot Standard Equipment)

FALSE ALARMS

GREETINGS

Some thirty years ago we can remember when butter was ten cents a pound, milk was five cents a quart, the butcher gave away liver and treated the kids with bologna, the hired girl received two dollars a week and did the washing. Women did not powder and paint (at least in public), play poker or carry cigarette lighters.

Men wore whiskers and boots, chewed tobacco, spat on the sidewalks and cussed. Beer was five cents and the lunch was free. Laborers worked from sunup to sundown for fifty cents and never went on strike. A kerosene lamp and a stereoscope in the parlor were luxuries.

No one was ever operated on for appendicitis or bought glands. Microbes were unheard of and folks lived to a good old age.

Today, you know, everybody rides in automobiles or flies, plays golf, shoots craps, plays the piano with their feet, goes to the movies nightly, drinks Rukus Juice, never goes to bed the same day they get up, and think they are having a wonderful time. And if they miss one section of a revolving door they worry about the time they're wasting.

These are the days of excess taxes and prohibition. But if you still think that life is worth living, the editors wish you

A Happy New Year

TRUE TO LIFE

What did little girls get for Christmas?
Sugar and spice
And everything nice
That's what little girls got for Christmas.

But what did fire chiefs get for Christmas?
Socks by the pair
And ties they can't wear;
That's what fire chiefs got for Christmas.

The chief is inclined to believe that a crossed wife might be the cause of the fire—*Scranton Times*. Although this was a typographical error, there are many husbands that attest the truth of the statement.

F. S.

"My wife is like some of the horses used in the small town fire departments."

"How's that?" asked the other.

"Well, it's nag, nag, nag all the time."

POINT OF VIEW

A driver of a ladder truck in a midwestern town hit a parked automobile and was held personally liable. It was quite obvious that his firemen comrades should be put out about it. They were discussing the case in the station shortly after the trial.

"I don't believe in the practice of the state changing the job of its citizens," said one.

"How's that?"

"Well look at Ernie. He wasn't doin' nothin' but drivin' the fire truck when he hit the car. And of course the state felt so sorry for Ernie that they gave him a job for six months at hard labor."

A BAD OUTLOOK

The new fire commissioner was very strict on having the firemen report the truth, etc.

Jim's friend did something which was not according to Hoyle and the official records were doctored so that the mishap would not be noticed. But it was eventually found out and Jim was called on the carpet.

"Look here, my fine fellow. Do you know what will happen if you are caught lying?" asked the commissioner.

"Well I suppose I'll go to Hell and burn."

"Worse than that," roared the commissioner, "you'll get fired out of the department."

AN END TO THE STORIES

This is a story about Al. Goodrich, fire commissioner in Chicago.

Mr. Goodrich was pestered by too many callers who had funny stories to tell. Many of the callers did not have to tell stories—he could get a laugh by just looking at them. The Commissioner installed a high brass rail outside his private office. The gate was controlled by an electric push button placed on the commissioner's desk, and all were instructed that the button was private.

Since this device has been installed, Mr. Goodrich has been unable to find the button whenever some of the "funny" fellows came around.

M. E. KRAUSE.

HE WHO GETS SLAPPED

When the chief's chauffeur deposits the big boss at his house, then of course there is a big car with plenty of empty seats to drive back to the station. Being a fire department car, it is equipped with all the appliances to get the right of way.

It was therefore the obvious thing for one girl to ask another, "Have you seen the new sirens that the fire department is using?"

"Yes, Mazie, I have, and one of them accosted me the other day."

It's a short lane that has no road hog.

SOMETHING WRONG HERE

A Washington paper printed the following item: W—new fire truck and pump had its first tryout yesterday morning at about 3 o'clock. The fire occurred in a store and rooming house belonging to Jake Gibbons. The building was entirely destroyed.

THEN HE WAS SICK

Tom was in a very bad way. At the Dunn street fire he had swallowed more smoke than was good for him, jabbed a spike through his boot and twisted his foot. Yes indeed, Tom was in a bad way.

His buddy, Mike, called at the hospital as soon as his shift was relieved. Tom was in bed looking at the ceiling.

A nurse entered to take Tom's temperature.

"Gee, Tom," said Mike excitedly, "you certainly got a swell looking, nice dresser of a nurse."

"Is she Mike? I didn't notice."

"Hully gee, Tom, then you must be sick."

WELL ORGANIZED

A number of college boys who had lots of time on their hands, organized a volunteer fire department to assist the main fire department of the village. In other words, they were a second line of defense.

One day a fire was burning merrily in a residence. It appeared that the fire would spread to the next house, a hundred or so feet away.

"Clear that house," said the chief of the village department to the college crew. He wanted to save all the furniture that he could.

And before the main chief realized what was going on, the college boys had about half of the house taken down.

VERY BADLY TREATED

Occassionally some person gets into the fire service whose mentality could never be rated at par.

The chief of this department was great on discipline and he had instructed the subordinate officers to demand the proper respect from the men. When one lieutenant passed by a rookie who had just been assigned to the station, he failed to get the salute that his office demanded.

"Did'nt you see this cap?" asked the officer, pointing to the gold braid.

The rookie looked admiringly at the hat and said, "Yeh, look at the damned thing they gave me."

VIVACIOUS YOUTH

"Well Dad, I'm a college graduate now," said the one with the diploma just after the graduation ceremonies on the college campus. "Watch me go out and set this old world of ours afire."

"I suppose," replied the father, "you'll expect me to give you the matches with which to do it."

MAKING UP THE TIME

Joe was not looking very well—at least so his wife thought. She thought that Joe should get off the night shift, and to please her he went to the fire department physician.

"Doctor I want you to find out what's wrong with me," said Joe. "I only get about two hours sleep at night."

"If that's the case, I don't understand how you look so well as you do."

"Well you see, doctor, I sleep about ten hours during the day."

MATHEWS

(Reg. U. S. Pat. Off.)

FIRE HYDRANTS

for

DOMESTIC

and

HIGH PRESSURE

Service

NOTE—

The positive waste value.

All operating threads are dry, being above the stuffing-box.

No toggles, no small, quick-wearing parts.

All moving parts are bronze or bronze-bushed.

The outside casing permits replacing a two-way standpipe with a steamer and two-way standpipe without digging up the ground.

An easily installed
EXTENSION SECTION
readily adapts them to new grades.

VALVES and BOXES
CAST IRON PIPE
(Sand-Cast or "Sand-Spun")
FITTINGS

R. D. WOOD & CO., Phila., Pa.

BRAXMAR

BADGES

have been the recognized standard for fire departments for almost 50 years. Used everywhere. More than 900 designs. Send for illustrated catalog and prices.

C. G. BRAXMAR CO.
242 W. 55th St., N. Y. C.

Quick-Acting Reliable

Anderson-Hale Improved

FIRE STATION DOOR OPENERS

Over 1,300 sets of Anderson-Hale Fire Station Door Openers are in successful use. They provide simple, durable, quick-acting doors that open inward. No obstruction to sidewalk. Attractive in appearance, cannot sag, closes tight, excludes cold, gives clear opening. Opens from driver's seat or from floor. Many repeat orders from users.

Write for complete information.

The Anderson Coupling & Fire Supply Co.
Mfrs. Motor Fire Equipment and Fire Supplies
Kansas City, Kansas

BADGES

of Every Description

QUALITY GUARANTEED

Right Prices
Prompt Delivery

Write for latest catalogue and price list

EVERSON-ROSS CO.
88 Chambers St., New York

JOHN H. CLAY, INC.

1320 Ridge Ave., Philadelphia, Pa.
Established 1864

Clay Automatic Door Spring Devices for fire stations save valuable minutes in getting to fires. Write for details.

Blanchard Adjustable Angle Nozzle Tips

Repeat orders received within the last week.

West Rutland, Vt.	4	Billerica, Mass.	2
Boston, Mass.	9	Stoneham, Mass.	2
Gardner, Mass.	2	Sanford, Maine	1
Lambertville, N. J.	1	New London, Conn.	2
Wethersfield, N. J.	1	East Derby, Conn.	2

"Take a tip from Blanchard and write for pamphlet"

ARTHUR H. BLANCHARD
25 Hampshire Street Cambridge, Mass.

The made to measure and to fit

"Famous Kalamazoo" Firemen's Uniforms

Wear Longer and Look Better—but Cost no More.

Try one and you will always wear them.

The HENDERSON-AMES CO.
KALAMAZOO, MICH.

JACOB REED'S SONS
Founded 1824 by Jacob Reed

FIREMEN'S UNIFORMS

Thoroughly tailored of especially selected fabrics. Uniforms that look well, wear well and that will give entirely satisfactory service.

Reed's Uniforms are most economical because they represent full value for the amount expended.

Write for catalog and prices.

1424-1426 Chestnut St., Philadelphia, Pa.

EDDY
Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.
James B. Clow & Sons, Chicago Agents

Eastman Improved Platforms and Holders

Write for Catalogue

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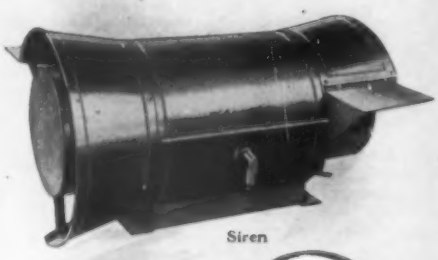

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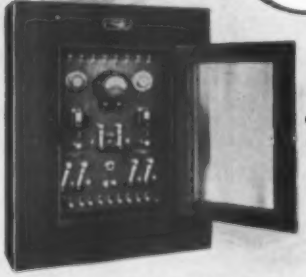

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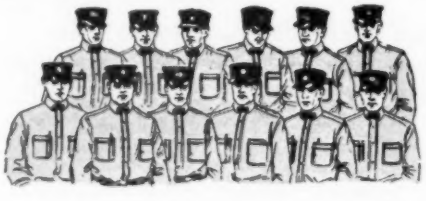

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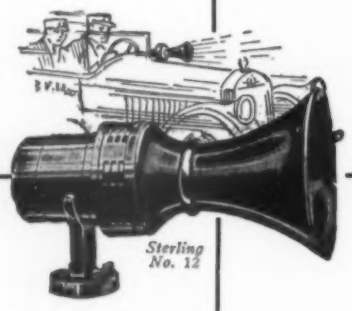

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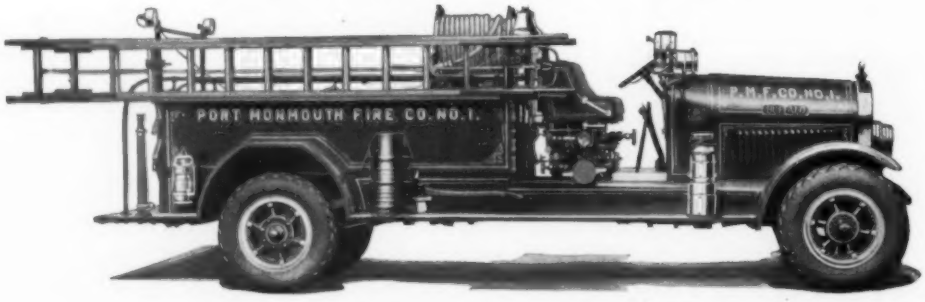

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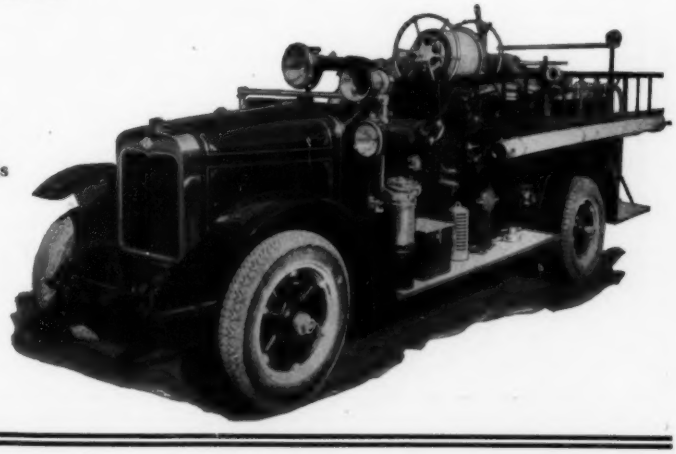

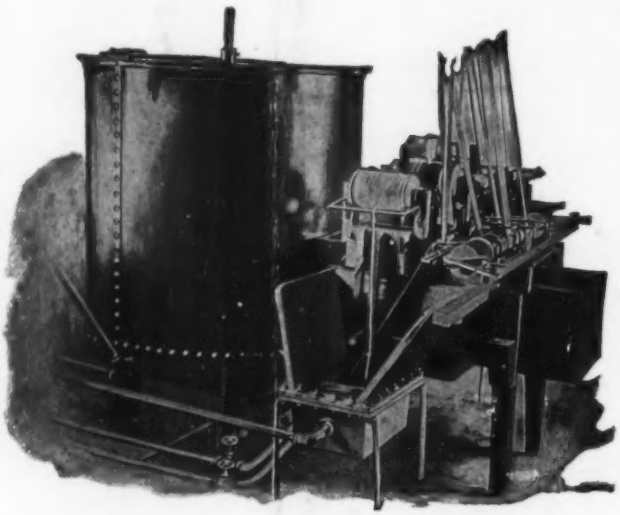

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